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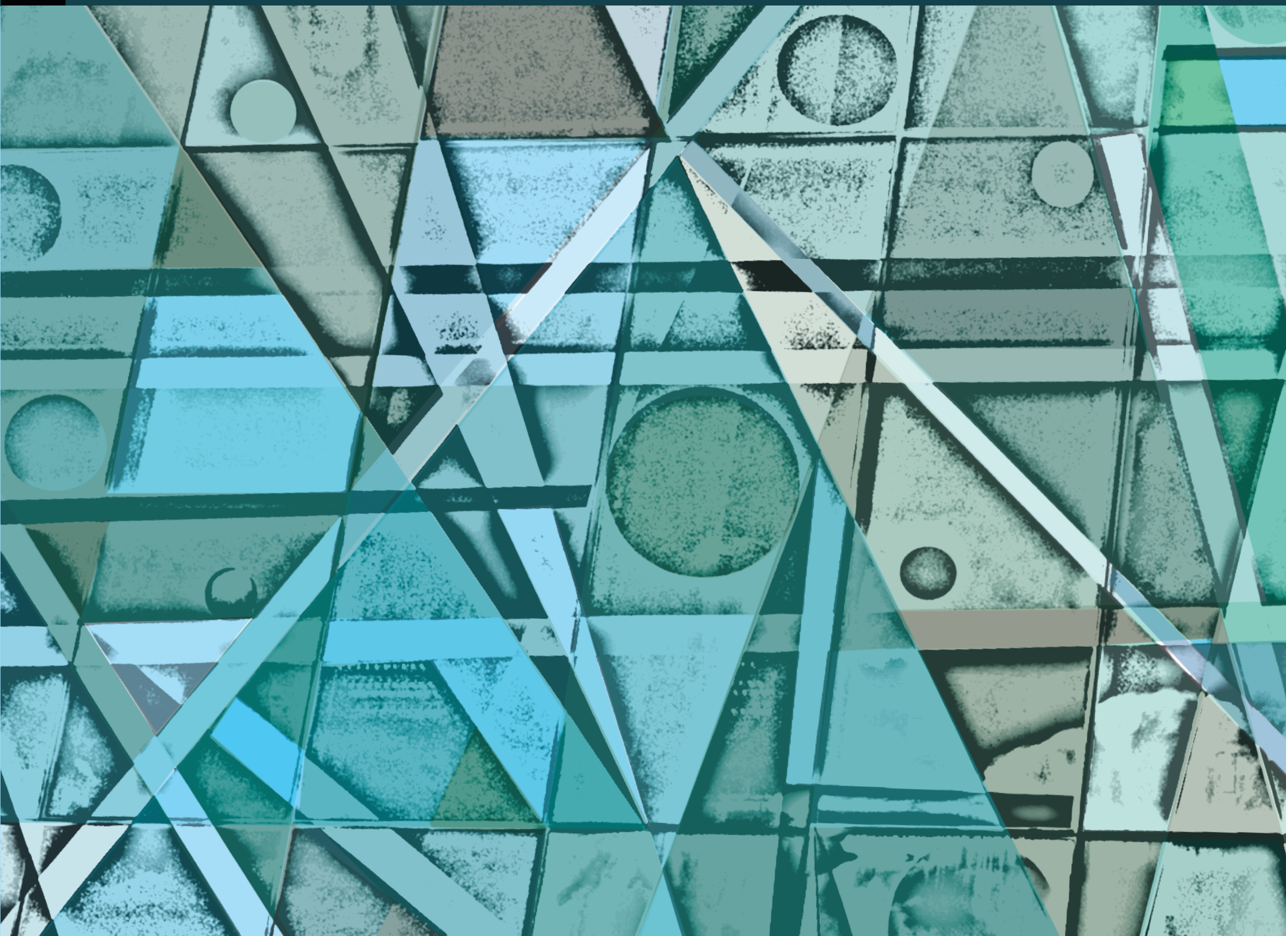
Internacionalización de la empresa mediana y liderazgo en los mercados mundiales



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EUSKO JAURLARITZA
GOBIERNO VASCO

OGASUN ETA EKONOMIA SAILA

DEPARTAMENTO DE HACIENDA Y ECONOMÍA

Eusko Jaurlaritzaren Argitalpen Zerbitzu Nagusia

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AURKEZPENA

Ekonomiaz nazioarteko seihilabetekaria da, 1985etik Eusko Jaurlaritzaren Ogasun eta Ekonomia Sailak argitaratuta. Erredakzio Kontseilu profesional batek zuzentzen du eta bere helburu nagusia analisia eta eztabaida ekonomikoa bultzatzea da, herrialdeko ikuspuntuarekin eta arreta berezia jartzen eremu aplikatuari eta euskal ekonomiari. Argitalpenaren profila eta helburuak ale honen amaieran eta aldizkariaren web orrian kontsulta daitezke.

PRESENTACIÓN

Ekonomiaz es una revista semestral con proyección internacional, editada desde 1985 por el Departamento de Hacienda y Economía del Gobierno Vasco y dirigida por un Consejo de Redacción profesional, que tiene por objeto el fomento del análisis y el debate económico con un enfoque regional y especial atención al campo aplicado a la economía vasca. La línea editorial y objetivos de la revista se pueden consultar al final de este ejemplar y en la página web de *Ekonomiaz*.

ADMINISTRAZIOA ETA ERREDAKZIOA / REDACCIÓN Y ADMINISTRACIÓN

Eusko Jaurlaritza - Gobierno Vasco
Ogasun eta Ekonomia Saila - Departamento de Hacienda y Economía

Donostia-San Sebastián, 1 - 01010 Vitoria-Gasteiz - Álava (Spain)
945 01 90 38 Administrazioa - Administración / 945 01 90 36 Erredakzioa - Redacción
Web: http://www1.euskadi.net/ekonomiaz

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Presentación

El interés por las empresas de tamaño medio como contribuyentes al comercio exterior y a la resiliencia económica se remonta desde hace mucho tiempo (ver Bonaccorsi, 1992; Shama, 1993), interés que en los últimos tiempos se ha visto fortalecido por una creciente atención hacia las empresas con cualidad de campeones ocultos y hacia el Mercado Medio (*Middle Market*) como segmento específico de la demografía de las empresas. Esto no se debe en absoluto a la preocupación de la sociedad por la resiliencia de las economías occidentales tras el estallido de las crisis financiera y crediticia de 2008; es más, han sido precisamente dichas turbulencias las que han contribuido a que las empresas internacionalizadas, y en particular las que operan de manera enfocada a la exportación, se hayan convertido en elementos importantes para la solidez de las economías ante futuras adversidades (Dallago *et al.*, 2012).

Sin embargo, este interés ha sido desigual si se comparan los círculos políticos y de consultoría con los académicos y científicos.

Por un lado, los responsables de la formulación de políticas y los profesionales de las empresas privadas han puesto cada vez más atención en la evolución y desempeño de las empresas medianas que cuentan con una fuerte posición en el mercado (internacional)[1] y en el Mercado Medio donde operan un grupo de empresas en las que se incluyen las empresas anteriores[2]. Esto se debe a que estas empresas se alinean bien con aquellas políticas que seleccionan ganadores (*picking winner*) o que buscan mejores prácticas de difusión, y porque ayudan a legitimar estrategias de especialización inteligente. Además, las empresas que son especialistas en nichos internacionales tienen modelos con roles atractivos, ya que demuestran cómo estas empresas de un tamaño observable logran diversificar sus ventas en todo el mundo, aumentando así su solidez frente a las caídas en los mercados específicos (nacionales). Asimismo, desde una perspectiva de geografía económica, estas empresas constituyen grandes activos, al contribuir firmemente en varios indicadores económicos de la región donde se establecen, mientras que la dependencia de una región o nación para con ellas tiende a ser limitada.[3]

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[1] Véase por ejemplo el «Plan de Internacionalización 2017-2020» del Gobierno Vasco y el contrato de coalición «Koalitionsvertrag» entre la CDU y el SPD de 2018 en Alemania, además de los programas de políticas de apoyo puestos en marcha en Taiwán y Corea del Sur.

[2] Véase, por ejemplo, los estudios de GE Capital o Ernst & Young. https://www.ey.com/en_gl/growth-barometer.

[3] Es decir, siempre que una cierta densidad de estas empresas se pueda encontrar en una localidad y se consideran localidades de al menos nivel NUTS 2- («regiones») y no niveles de ciudades individuales.

Por otro lado, las publicaciones científicas sobre este tipo de empresas han sido muy escasas, tal es así que en los últimos diez años no ha aparecido ningún artículo que tenga como objetivo explícito a los campeones ocultos o al Mercado Medio como punto de partida en las cinco revistas más importantes de International Business (Tüselmann *et al.*, 2016).

Si bien las empresas medianas que lideran los mercados internacionales podrían servir para investigaciones tan interesantes como por ejemplo acerca del funcionamiento de la internacionalización, la sincronización de sus decisiones sobre cuándo y cómo entrar en el mercado y su despliegue acerca de las ventajas de ser el primer o el segundo pionero, lo cierto es que la investigación metodológica y sistemática para examinar el comportamiento estratégico o las características competitivas de este tipo de empresas aún no ha alcanzado su potencial.

Es precisamente la imposibilidad de operacionalizar y de concretar lo que estas significan lo que ha frenado el avance en la investigación de este tipo de firmas. Probablemente este no sea tanto un problema de las empresas del Mercado Medio, donde la discusión puede centrarse simplemente en el umbral superior e inferior en términos de facturación anual, pero sí puede llegar a serlo para la investigación de los campeones ocultos, debido precisamente a la complejidad para definirlas. Por lo tanto, el objetivo de este monográfico de Ekonomiaz es afinar dicha terminología y el funcionamiento de los objetivos de investigación, haciendo referencia a ellos como, por ejemplo, líderes internacionales o líderes globales de nicho de mercado.

Estructura de las contribuciones

La presente edición tiene dos partes. La primera la forman las contribuciones tópicas del monográfico *Internacionalización de las empresas medianas y liderazgo del mercado global*. La segunda, consiste en los artículos que forman el apartado «Otras colaboraciones».

Contribuciones del monográfico

Concretamente, la presente edición de Ekonomiaz proporciona una línea de investigación sobre cuestiones de internacionalización y liderazgo de mercado en torno a empresas medianas mediante una colección de artículos que analizan sus características distintivas (**Georg Jungwirth** y **David König**, 2019) y modus operandi (**John Bessant**, 2019), que abordan algunos de los desafíos actuales a los que se enfrentan (**Bernd Venohr** y **Bart Kamp**, 2019) y las implicaciones para la formulación de políticas y estrategia empresarial (**Rudy Aernoudt**, 2019; **Gert-Jan Hospers**, 2019; **Jerker Johnson**, **Johanna Dahl** y **Åge Mariussen**, 2019; **Josu Ugarte**, 2019).

Paralelamente, varios de los artículos de esta publicación promueven el marco metodológico y de operacionalización para la investigación sobre las empresas en cuestión (**Christian Rammer** y **Alfred Spielkamp**, 2019; **Venohr** y **Kamp**, 2019), y proporciona información sobre los líderes internacionales de nicho de mercado (INML) o campeones ocultos en economías específicas de Europa (**Rammer** y **Spielkamp**, 2019; **Kamp**, 2019).

Asimismo, las contribuciones se pueden dividir, según su enfoque, en nacional (**Rammer** y **Spielkamp**, 2019; **Jungwirth** y **König**, 2019) o regional (**Hospers**, 2019; **Johnson** *et al.*, 2019; **Kamp**, 2019), vinculándose a especificidades culturales subna-cionales o a la diversidad cultural del país (Beugelsdijk *et al.*, 2017). De otro lado, las colaboraciones de **Aernoudt** (2019), **Hospers** (2019), **Johnson** *et al.* (2019) y **Kamp** (2019) analizan por un lado los patrones de distribución de las empresas medianas de alto rendimiento en función de las características espacio-económicas específicas del territorio en el que se ubican (actividad industrial, tamaño de la empresa, acceso a la financiación), y por otro las medidas de apoyo a las políticas y sistemas del capi-talismo, proporcionando información sobre los tipos de empresas que se pueden encontrar en las respectivas economías (en línea con los trabajos de Audretsch *et al.*, 2018; Bleuel, 2018; Lehmann *et al.*, 2018).

Otras colaboraciones

En esta sección, que cierra el ejemplar, se presentan dos artículos.

El primero, de **Noemí Angulo** y **Amaya Angulo**, describe el sistema actual de asignación del organismo competente en temas de resolución de conflictos entre la Autoridad Nacional de Competencia y las autoridades regionales. Estos conflictos surgen a causa de infracciones a la Ley de Competencia del Estado español.

- El segundo artículo, de **Xavier Labandeira**, **Alberto Gago**, **Xiral López** y **José Mª Labeaga**, analiza las posibilidades de reforma de los impuestos energético-ambientales en España. Tras estudiar el contexto teórico de estos impuestos en un marco federal y algunas experiencias internacionales destacadas, el trabajo evalúa la viabilidad de estos impuestos en los ámbitos subcentrales de gobierno. En España, la situación actual de estas figuras se caracteriza por el desinterés del gobierno central y la descoordinación de las iniciativas autonómicas.

Selección de las ideas más importantes de las colaboraciones del monográfico

Los restantes tres apartados se dedican a resumir: a) las diferencias entre *Mittelstand* y Mercado Medio, b) los retos para las empresas medianas en los mercados internacionales; y c) las recomendaciones de políticas y sugerencias de investigación, que resultan de estas contribuciones.

Mittelstand **y Mercado Medio**

Un concepto que se asocia frecuentemente con los campeones ocultos es el llamado *Mittelstand.*

Al contrario de lo que insinúa la literatura existente acerca de los campeones ocultos de Alemania (Simon, 2012; Audretsch *et al.*, 2018; Bleuel, 2018), los artículos de Bessant (2019), Hospers (2019) y Kamp (2019) proporcionan evidencias de la presencia de este tipo de empresas fuera del país. Además, cuestionan el cordón umbilical entre los campeones ocultos o INML y el concepto *Mittelstand*, especialmente si se interpreta *Mittelstand* desde un ángulo más amplio que desde una perspectiva de tamaño. Por ejemplo, varios de los casos recogidos en la presente edición de Ekonomiaz muestran que los campeones ocultos / INML no tienen que cumplir con la «regla» de no separación de propiedad y gestión en estas empresas, ni tampoco necesitan tener un vínculo a una empresa familiar.

Como varias de las contribuciones se refieren al Mercado Medio (Ugarte, 2019; y Kamp, 2019) como marco para caracterizar el tamaño de la empresa, mientras que otras se refieren a *Mittelstand* (Rammer y Spielkamp, 2019; y Hospers, 2019), los dos conceptos pueden expresarse y caracterizarse en los siguientes cuadros.

Tabla 1. ***MITTELSTAND* Y MERCADO MEDIO EN TERMINOS DE TAMAÑO DE EMPRESA**

	Mittelstand	Mercado Medio (facturación)
Segmento superior	Entre 250-3000 empleados y/o 50-250 millones de euros de facturación	100 millones de euros-1 billón de euros
Segmento medio	Entre 10-250 empleados y/o 2-50 millones de euros de facturación	50-100 millones de euros
Segmento inferior	Menos de10 empleados y/o 2 millones de euros de facturación	10-50 millones de euros

Fuente: Elaborado por el autor y basado en Röhl (2017, 2018), National Center for the Middle Market (2011) and GE Capital and Warwick Business School (2013).

Cuadro nº 2. ***MITTELSTAND* Y MERCADO MEDIO EN TÉRMINOS DE GOBERNANZA**

	Mittelstand	Mercado Medio
(No) separación entre propiedad y gestión	No separación	No es una característica distintiva; neutral en este aspecto
Negocio familiar	La norma	No es una característica distintiva; neutral en este aspecto

Fuente: elaboración propia basada en la revisión de la literatura.

Retos para las empresas de tamaño medio en los mercados internacionales

Si bien la mentalidad de enfoque (Kormann, 2005), la comercialización de marcas de alto valor (Georges, 2017), las capacidades de innovación dinámica (Bessant, 2018) y una amplia posición hacia la internacionalización (Simon, 2012) funcionan muy bien en las empresas medianas analizadas en esta edición de Ekonomiaz; estas también se enfrentan a diferentes retos. A continuación, señalamos algunos de ellos:

- *Finanzas*: las empresas en cuestión generalmente buscan un alto rendimiento sobre el capital mientras mantienen bajos índices de deuda/capital (Brenes *et al.*, 2017) y esto es un factor importante que explica sus trayectorias de crecimientos sostenibles. Sin embargo, ello podría obstaculizar su capacidad para gestionar formas de expansión más rápidas (incluido el crecimiento no orgánico), si fuera necesario, para seguir siendo un jugador líder en un mercado de rápido crecimiento (Ugarte, 2019; Venohr y Kamp, 2019; Aernoudt, 2019). Si tales circunstancias de crecimiento ocurriesen, se pudiera considerar la necesidad de considerar fórmulas alternativas para financiar el crecimiento.
- *Presencia interna*: el éxito comercial sostenido basado en el desbloqueo de los mercados *offshore*, particularmente en las economías emergentes, puede exigir una presencia y asistencia mucho mayor *in situ*, que simplemente tener una capacidad de ventas. De hecho, ello puede implicar una presencia física más enérgica en forma de capacidades productivas y de actividades de I+D, desarrollando así una «presencia interna» en esos mercados en crecimiento (Venohr y Kamp, 2019).
- *Transformación digital y adopción de la Industria 4.0*: al igual que la industria en general, las empresas en estudio deben implicarse en la cuarta revolución industrial (Freimark *et al.*, 2018). Por otra parte, Ugarte (2019) y Hospers (2019) destacan la importancia de este tema para la competitividad sostenida de las empresas industriales en las economías desarrolladas. Si bien es importante la incorporación de nuevas tecnologías, se debe evitar a la vez caer en la «miopía tecnológica». Como señalan Rammer y Spielkamp (2019) y Bessant (2019), para aprovechar la tecnología en la consecución del éxito empresarial, la gestión de la innovación y las capacidades tecnológicas son de gran importancia. En consecuencia, los beneficios que se obtienen de la innovación no son solo una cuestión de invertir en tecnología. Además, dado que la implicación en la Industria 4.0 y en conceptos tecnológicos similares es un tema recurrente entre organizaciones, se recomienda asegurar que las partes circundantes (cadena de valor) alcancen los niveles de preparación en la Industria 4.0. De ahí la relevancia de adoptar un enfoque de red y emplear asociaciones público-privadas para lograr dichas tareas (Hospers, 2019; Johnson *et al.*, 2019).
- *Servitización*: la mentalidad de producto e industrial que predomina en muchas de las empresas examinadas puede dificultar su camino para desarrollar su negocio de servicios y promover una mentalidad orientada al servicio. A

la vez, el carácter singular y especializado de muchos productos y bienes que ofrecen las empresas de nicho de mercado puede disminuir su importancia fundamental que estos productos y servicios desempeñan en los procesos de creación de valor de su clientela y, por tanto, reducir la capacidad de estas empresas para proponer soluciones integradas a sus clientes (Kamp, 2018).

- *Reclutamiento y desarrollo del talento*: en este sentido, hay que distinguir dos líneas. Por un lado, la importancia de incorporar talento extranjero para el éxito empresarial global (Ugarte, 2019; Venohr y Kamp, 2019); y por otro, cooperar localmente con los centros de formación y educación (Hospers, 2019) e invertir en recursos humanos (Rammer y Spielkamp, 2019). En conjunto, esto se convierte en una cuestión de competencias para organizar las expectativas locales y las oportunidades globales. Particularmente, las asociaciones público-privadas también pueden ser útiles para apoyar la dimensión local y la preparación del talento local (Hospers, 2019; Johnson *et al.*, 2019).

Recomendaciones de políticas y sugerencias de investigación

A la luz de los desafíos a los que se enfrentan las empresas medianas en su búsqueda de la internacionalización y el liderazgo del mercado global, se pueden considerar las siguientes sugerencias para las políticas de ayudas e investigaciones futuras:

- *Segmentar las empresas privadas en categorías más significativas*: la forma convencional de clasificar a las empresas es mediante el número de empleados y caracterizarlas entre microempresas (menos de 10 empleados), pequeñas empresas (10 a 49 empleados), empresas medianas (50 a 249 empleados), o grandes empresas que emplean a 250 o más personas. Sin embargo, por el bien de fomentar el comercio exterior y los negocios internacionales, esta puede no ser la categorización más adecuada. Para empezar, entre las que pertenecen a la categoría de grandes empresas puede haber empresas dirigidas por sus propietarios con fuertes raíces locales (en lugar de multinacionales globalmente dispersas) y, por lo tanto, comportarse como empresas integradas de tamaño mediano. Además, en lugar de centrarse en el tamaño de las empresas, puede ser más relevante analizar el tamaño y las características de los mercados a los que las empresas se dirigen (ya sea un nicho o un mercado de gran volumen, y si se trata de un mercado marginal o principal), la posición que adoptan para los negocios internacionales (p. ej., la proporción de ventas internacionales respecto del volumen de negocios total y si estas ventas son principalmente impulsadas por la exportación o fruto de la Inversión Extranjera Directa (IED), o respaldadas por empresas conjuntas y alianzas con socios extranjeros), y el estatus de las empresas en los respectivos mercados que abordan en función de su participación en el mercado (líder, contendiente, jugador secundario...). La segmentación en función de la etapa de desarrollo de negocios internacionales de las empresas, tal y como se describe en el Plan de Internacionalización del País Vasco 2017-2020 (ver pág. 9)[4], sirve como un punto interesante de referencia al respecto.

- *Aumentar el número de empresas medianas internacionalmente líderes*: los lugares que tienen un grupo firme de INMLs deben trabajar en la expansión y/o renovación de esta base. Por un lado, esto implica ayudar a los INML a seguir siendo un actor de vanguardia en los mercados a los que se dirigen. Por otro, implica buscar empresas subcampeonas con potencial para convertirse en líderes en nichos de mercados internacionales y orientar sobre las formas de alcanzar dicho liderazgo. Para ese fin, se prevé establecer un sistema de transferencia de buenas prácticas o revisión inter pares entre los INML y entre estos y las empresas secundarias. Finalmente, dichos mecanismos de vinculación pueden gobernarse a través de una entidad que asegure que las prácticas emprendidas cumplan estándares de calidad específicas. De manera similar, tal organismo también puede responsabilizarse de emitir certificaciones específicas (p. ej. un tipo de consejo regulador que garantice y otorgue una etiqueta «DOC»: «Denominación de Campeón Oculto»). También se pueden establecer esquemas similares de patrocinio y tutorías entre las zonas y comarcas que albergan un grupo considerable de INML y las que no lo tienen, para que estas aprendan de las primeras.
- *Interactuar y aprender de los INML*: por ejemplo, con respecto a los mecanismos que se desplieguen para conquistar y prolongar el liderazgo en el mercado. Los conocimientos que se obtengan de tales interacciones pueden servir para conocer sus estrategias ofensivas y defensivas en la conquista de mercado y para abordar preguntas tales como: ¿cómo detectar oportunidades de mercado?, ¿cómo posicionarse con éxito y oportunamente en mercados (nicho) y cómo consolidar su éxito? Los hallazgos posteriores pueden servir tanto para fortalecer los mecanismos de competitividad de los INML como para preparar el terreno y actuar en consecuencia. El estudio de dicho comportamiento de mejora de la competitividad también puede servir como aportación para diseñar programas de apoyo a favor de conductas de innovación estratégica.
- *Facilitar el acceso a la financiación*: mientras que hay empresas medianas que prefieren financiar su crecimiento con sus propios recursos, puede haber otras que decidan recurrir a proveedores externos de capital para seguir su camino de crecimiento. Aunque siempre no se puede obtener un respaldo financiero suficiente de las fuentes locales, el sector público puede resolver esta carencia creando cauces de financiación alternativas y/o proporcionando esquemas de garantía o instrumentos de financiación intermedia.[5]

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4 https://www.spri.eus/archivos/2018/02/pdf/Plan_Internacionalizacion_2017-2020_Pais_Vasco_Final.pdf

5 Instrumentos que permitan la financiación externa no bancaria sin perder la propiedad de la compañía.

- *Fomentar lazos entre empresas medianas y proveedores de servicios financieros no convencionales*: tanto para la financiación de las operaciones de servitización como del desarrollo/crecimiento general de las empresas, generalmente se requiere capital externo. Siempre que el modelo de negocio y las operaciones de crecimiento tengan una categoría o un carácter novedoso, las entidades financieras convencionales pueden no estar preparadas para esta tarea. Por lo tanto, se considera interesante ayudar a las empresas a ampliar su combinación de fuentes financieras y orientarse hacia empresas de tecnología financiera y empresas de gestión de activos industriales. Para establecer un paralelismo con una iniciativa actual en el País Vasco: de la misma manera que el programa BIND 4.0[6] se propone construir puentes entre las empresas industriales consolidadas y las de nueva creación, este programa puede recomendarse para llegar a empresas industriales, especialmente las ya consolidadas, familiarizadas con entidades financieras de última generación.
- *Ayudar a las empresas medianas, tanto internacionalizadas como a las que se están internacionalizando, en el desarrollo del mercado y en la inteligencia competitiva en lugares con potencial para ser líder de mercado*: en el contexto actual de globalización y sofisticación de las economías emergentes, encontrar y explotar un nicho de mercado internacional puede convertirse cada vez más en una cuestión de comportamiento astuto de arraigo en el extranjero. Por lo tanto, es importante dotar de sistemas de inteligencia a las empresas medianas, para trabajar de forma intensiva con *big data* y actualizarlos según las capacidades inteligentes y semánticas de nuestra época. Asimismo, tiene sentido dar un apoyo específico a la utilización de formas de entrada de gran capital (por ejemplo, para actividades de producción e I+D) como un medio para fomentar la presencia en dichos mercados. Además, se considera apropiado ayudarlas a desarrollar habilidades sociales para trabajar sin problemas en esos lugares y aumentar sus posibilidades de convertirse en actores fundamentales en las cadenas de valor dirigidas por empresas extranjeras, lo que les permitiría allanar los caminos para que otros puedan participar en su éxito.
- *Mentalizar a las empresas medianas para hacer negocios con empresas de economías emergentes en el extranjero y en su propio país*: mientras que las empresas pueden estar acostumbradas a hacer negocios con sus equivalentes extranjeras *in situ*, la idea de hacer negocios con multinacionales de economías emergentes en su mercado local o continente puede parecer contraria al sentido común. Sin embargo, las multinacionales actuales de los países de América Latina y de las grandes economías asiáticas pueden optar por expandir

[6] Programa de ayuda del Gobierno Vasco para impulsar la transformación digital de las grandes empresas a través de la colaboración con *startups*, la aceleración de estos emprendedores y la atracción de talento internacional. Su nombre deriva de un juego de palabras de las letras iniciales de la estrategia Basque Industry de Digitalización de la industria vasca, y del verbo en inglés to bind (conectar), que trata de unir empresas tractoras y *startups*.

sus negocios internacionales a través de la Inversión Extranjera Directa y las adquisiciones de compañías occidentales, en lugar de seguir un camino impulsado por las exportaciones. En este sentido, su modus operandi puede ser diferente del motivo recurrente (crecimiento a nivel local) que suelen seguir los conglomerados japoneses y surcoreanos.

- *Incentivar a las empresas medianas industriales para que adopten el concepto de la Industria 4.0 de una manera completa*: finalmente, la cuarta revolución industrial no se limitará a la conectividad dentro de la empresa, sino que también llevará a una gestión de planta a planta y de procesos en toda la cadena de valor. Además, preparará a las empresas para aplicar la transformación digital, no solo al ámbito de la fabricación sino también a la forma de gestionar las relaciones con los clientes y las interacciones con el mercado en general. De cara a conseguir una competitividad sostenible, se debiera estimular a las empresas de tamaño medio para seguir ambos caminos.
- *Adoptar la servitización como parte integral de la formulación de políticas industriales*: es importante fomentar una lógica de servicio preponderante entre las empresas fabricantes para la competitividad en los mercados industriales del futuro. Adoptar esta mentalidad de servicio no es solo para empresas privadas; es también una tarea para los responsables de formular las políticas. Especialmente, para los involucrados en las políticas industriales, es importante proponer enfoques holísticos que vean los servicios y la servitización como parte de la ecuación de la competitividad industrial, y no como algo exógeno al contexto empresarial de las empresas fabricantes.
- *Multinacionalizar al grupo de talentos y la base de empleados a partir de la cual las empresas de tamaño medio construyen su competitividad*: cuando se opera en mercados que se globalizan cada vez más, o en sectores donde los países extranjeros actúan como mercados líderes, es vital contar con fuerzas laborales multinacionales. El primero también es esencial, dado el desarrollo y la importancia de estar presente en los mercados extranjeros. En consecuencia, se considera interesante alentar a las empresas de tamaño medio que operan internacionalmente a reclutar y reunir equipos con diversas trayectorias y antecedentes nacionales. Del mismo modo, las universidades y otras instituciones de educación superior, así como los centros de investigación y de tecnología situados en lugares con fuertes concentraciones de empresas medianas internacionalizadas, deberían también multinacionalizar su personal docente e investigador. En lo que respecta a los centros de educación superior, también merece la pena que ofrezcan (parte de sus) programas de formación en una o más de las lenguas francas y que promocionen sus programas para estudiantes de economías emergentes.

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Aurkezpena

Enpresa ertainak aspalditik izan dira interesgarriak kanpo-merkataritzaren eta erresilientzia ekonomikoaren eragile gisa (ikusi Bonaccorsi, 1992; Shama, 1993), eta azkenaldian sendotu egin da interes hori; izan ere, gero eta arreta handiagoa jartzen zaie ezkutuko txapeldun diren enpresei eta merkatu ertainari (*middle market*) enpresen demografiako segmentu espezifiko gisa. Horren arrazoia ez da, inola ere, gizarteak gero eta kezka handiagoa duela mendebaldeko ekonomiaren erresilientziari buruz, 2008an finantzetako eta kredituko krisialdia piztu zenetik; are gehiago, hain zuzen ere gorabehera horiek direla eta, etorkizuneko zoritxarrei aurre egiteko ekonomiaren sendogarri garrantzitsuak bihurtu dira nazioartekotutako enpresak eta, batez ere, esportazioari begirako jarduera duten enpresak (Dallago *et al.* 2012).

Dena dela, zirkulu politikoak eta aholkularitzakoak akademiaren eta zientziaren alorrekoekin konparatzen baditugu, interes hori ez da parekoa izan.

Batetik, politikak formulatzen dituzten arduradunek eta enpresa pribatuetako profesionalek gero eta gehiago erreparatu diete (nazioarteko) merkatuan kokaleku irmoa duten enpresa ertainen bilakaerari eta jardunari[1], baita merkatu ertainari ere, aurreko enpresak barnean hartzen dituen enpresa multzo gisa[2]. Beharbada, enpresa horiei ongi egokitzen zaizkielako irabazleak hautatzen (*picking winner*) edo zabalkunde-jardunbide hobeak bilatzen dituzten politikak espezializazio adimenduneko estrategiak legitimatu ditzaketelako. Gainera, nazioarteko nitxoetan espezialista diren enpresen ereduek rol erakargarriak izaten dituzte, agerian uzten baitute tamaina inkestagarriko enpresa horiek mundu osoan salmentak dibertsifikatzea lortu dutela, eta, horrenbestez, orain indar handiagoa dutela merkatu espezifikoetan (nazionalak) dauden beheraldiei aurre egiteko. Era berean, geografia ekonomikoko ikuspuntu batetik aktibo handiak dira enpresa horiek, zer lurraldetan dauden, ekarpen irmoa egiten dutelako eskualde horretako adierazle ekonomiko batzuetan, eta, aldiz, mugatua izan ohi da eskualdeak edo nazioak haiekiko duen mendetasuna[3].

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[1] Ikusi, adibidez, Eusko Jaurlaritzaren «2017-2020 aldirako Nazioartekotze Plana», CDU eta SPDren arteko 2018ko «Koalitionsvertrag» koalizio-kontratua Alemanian, eta Taiwanen eta Hego Korean abian jarritako babes-politiken programak.

[2] Ikusi, adibidez, GE Capital eta Warwick Business School (2013) edo Ernst & Young. https://www.ey.com/en_gl/growth-barometer.

[3] Hau da, baldin eta udalerri batean halako enpresen dentsitate-maila jakin bat badago eta gutxienez NUTS 2 maila duten guneak kontuan hartzen badira (eskualdeak) eta ez bana-banako hirietako mailak.

Bestetik, oso urriak izan dira halako enpresei buruzko argitalpen zientifikoak; kasurako, azken 10 urteetan ez da agertu jomugan berariaz ezkutuko txapeldunak edo merkatu ertainak dituen artikulurik International Business taldearen bost aldizkari garrantzitsuenetako batean ere (Tüselmann *et al.*, 2016).

Nazioarteko merkatuan aurrendari diren enpresa ertainek oso ikerketa interesgarriak egiteko balio dezakete, eta askotariko gaiei buruzkoak izan daitezke ikerketa horiek: adibidez, beraien nazioartekotzeko portaera, beraien merkatuan noiz eta nola sartzeari buruzko erabakien sinkronizazioa, eta beraien lehenengo edo bigarren aurrendaria izatearen abantailen hedapena; baina egia da, halaber, halako enpresen portaera estrategikoa edo lehiarako ezaugarriak aztertzeko ikerketa metodologiko eta sistematikoak ez duela oraindik bere ahalmen osoa erdietsi.

Hain zuzen ere, halako enpresen esangura operazional bihurtzeko eta zehazteko ezintasunak oztopatu du haien ikerketan aurrea egin ahal izatea. Aski litekeena da hori ez izatea arazo bat merkatu ertaineko enpresen kasuan; izan ere, urteko fakturazioari dagokionez goiko eta beheko atalasera mugatu daiteke eztabaidagaia, besterik gabe. Baina arazoak eman ditzake ezkutuko txapeldunak ikertzeko orduan, hain zuzen ere, horiek definitzeko zailtasunak direla eta. Beraz, terminologia hori eta ikerketa-helburuen funtzionamendua doitzea da *Ekonomiaz* aldizkariaren monografiko honen helburua, eta, horretarako, nazioarteko lider edo merkatu-nitxoko lider global terminoen bitartez egingo zaie erreferentzia.

Ekarpenen egitura

Ekonomiaz ale honek bi zati dauzka. Lehenengoak *Enpresa ertainen nazioartekotzea eta merkatu globaleko lidergoa*-ren monografikoaren artikuluak biltzen ditu. Bigarren zatian, «Beste Kolaborazioak» atalaren artikuluak daude

Gaiaren artikuluak

Enpresa ertainei dagokienez, nazioartekotzearekin eta merkatuko lidergoarekin zerikusia duten gaiak ikertzeko ildo bat ematen du *Ekonomiaz* aldizkariaren edizio honek, hainbat alderdi jorratzen dituzten artikuluak bilduta: besteak beste, zer bereizgarri dituzten (**Georg Jungwirth** eta **David König**, 2019) eta zer jardunbide (**John Bessant**, 2019); zer erronkari aurre egin behar dieten gaur egun (**Bernd Venohr** eta **Bart Kamp**, 2019), eta zer ondorio dituen horrek enpresen politikak eta estrategiak formulatzeko garaian (**Rudy Aernoudt**, 2019; **Gert-Jan Hospers**, 2019; **Jerker Johnson**, **Johanna Dahl** eta **Åge Mariussen**, 2019; **Josu Ugarte**, 2019).

Aldi berean, hizpide diren enpresei buruzko informazioa jaso da (**Christian Rammer** eta **Alfred Spielkamp**, 2019; **Venohr** eta **Kamp**, 2019), eta informazioa ematen da merkatu-nitxoko nazioarteko liderrei buruz (INML) edo Europako ekonomia zehatzetako ezkutuko txapeldunei buruz (**Rammer** eta **Spielkamp**, 2019; **Kamp**, 2019).

Halaber, ikuspegiaren arabera, nazionaletan (**Rammer** and **Spielkamp**, 2019; **Jungwirth** and **König**, 2019) edo eskualdekotan (**Hospers**, 2019; **Johnson** *et al.*, 2019; **Kamp**, 2019) sailka daitezke ekarpenak, nazioz azpiko berezitasun kulturalekin edo herrialdearen kultura-aniztasunarekin lotzen diren kontuan hartuta (**Beugelsdijk** *et al.*, 2017). Bestalde, **Aernoudt** (2019), **Hospers** (2019), **Johnson** *et al.* (2019) eta **Kamp** (2019) egileen kolaborazioetan, batetik, errendimendu handiko enpresa ertainen banaketa-ereduak aztertzen dira, non dauden finkatuta, eskualde horretako ezaugarri espazio-ekonomiko bereziak kontuan harturik (industria-jarduera, enpresaren tamaina, finantzaketa lortzeko aukera); eta bestetik, kapitalismoko politikak eta sistemak sustatzeko neurriei ere heltzen zaie, kasuan kasuko ekonomian egoten diren enpresa motei buruzko informazioa emanez (ikusi, orobat, Audretsch *et al.*, 2018; Bleuel, 2018; Lehmann *et al.*, 2018).

Beste kolaborazioak

Atal honetan bi artikuluak dauzkagu.

Noemí Angulo eta **Amaya Angulo** dira lehenengoaren egileak, eta Lehiaren Agintaritza Nazionalaren eta eskualdeko agintaritzaren arteko gatazkak ebazteko gaietan eskumena duen erakundearen gaur egungo esleipen-sistema deskribatu dute. Gatazka horiek Espainiako estatuaren Lehiaren Legeko arau-hausteen ondoriozkoak dira.

Bigarren artikulua **Xavier Labandeira**, **Alberto Gago**, **Xiral López** eta **José Mª Labeaga** egileena da, eta Espainian energia eta ingurumeneko zergen erreforma egiteko aukerak aztertzen ditu. Zerga horiek esparru federalean zer testuinguru teoriko duten eta nazioarteko zenbait esperientzia nabarmen aztertu eta gero, gobernuaren eremu azpizentraletan zerga bideragarriak diren ebaluatzen du lanak. Espainian, gobernu zentralaren interes eza eta autonomia-erkidegoetako ekimenen arteko koordinazio eza dira nagusi gaur egun.

Monografikoaren idei nagusien hautaspena

Gainerako hiru atalek kolaborazioen ondorioak deskribatzen dituzte: a) *Mittelstand*-en eta merkatu ertainaren artean desberdinak, b) nazioarteko merkatuetan enpresa ertainen erronkak; eta c) politikei buruzko gomendioak eta ikertzeko iradokizunak.

Mittelstand eta merkatu ertaina

Askotan kontzeptu bat ezkutuko txapeldunekin lotutako Mittelstand deiturikoa da.

Alemaniako ezkutuko txapeldunei buruzko literaturak aditzera emandakoaz bestela (Simon, 2012; Audretsch *et al.*, 2018; Bleuel, 2018), Bessant (2019), Hospers (2019) eta Kamp (2019) egileen artikuluetan jasotako ebidentziak agerian uzten du herrialdetik kanpo ere badaudela halako enpresak. Gainera, auzitan jartzen dute ezkutuko txapeldunen edo INMLen eta *Mittelstand* kontzeptuaren arteko zilbor-hestea, bereziki, tamainarena baino zabalagoa den ikuspegi batetik interpretatzen bada. Adibidez, *Ekonomiaz*-en edizio honetan jasotako zenbait kasutan ikusten da ezkutuko txapeldunek eta INMLek ez dutela zertan bete enpresaren jabetza eta kudeaketa ez banantzeari buruzko «araua», eta ez dutela familia-enpresa batekin lotura izan beharrik ere.

Ekarpenetako zenbaitek merkatu ertainari egiten diote erreferentzia enpresaren tamaina mugatzeko esparrutzat (Ugarte, 2019; eta Kamp, 2019), eta beste batzuek, berriz, *Mittelstand* aipatzen dute (Rammer eta Spielkamp, 2019; eta Hospers, 2019); beraz, taula hauetan adierazi eta ezaugarritu daitezke bi kontzeptuok.

1. taula. ***MITTELSTAND* ETA MERKATU ERTAINA ENPRESAREN TAMAINARI DAGOKIONEZ**

	Mittelstand	Merkatu ertaina
Goiko segmentua	250-3.000 langile artean eta/edo 50-250 milioi euro tu	100 milioi euro - 1 bilioi euro
Erdiko segmentua	10-250 langile eta/edo 2-50 milioi euro artean	50-100 milioi euro
Beheko segmentua	10 langile baino gutxiago eta/edo 2 milioi euro	20-50 milioi euro

Iturria: egilearena, eta Röhl (2017, 2018), National Center for the Middle Market (2011) and GE Capital and Warwick Business School (2013)ikerlanetan oinarritua.

2. taula. ***MITTELSTAND* ETA MERKATU ERTAINA GOBERNANTZARI DAGOKIONEZ**

	Mittelstand	Merkatu ertaina
Jabetzaren eta kudeaketaren arteko bereizkuntza (Ez-bereizkuntza)	Ez bereizkuntza	Ez da ezaugarri bereizgarria; alderdi horretan neutrala da.
Familia-negozioa	Ohikoa	Ez da ezaugarri bereizgarria; alderdi horretan neutrala da.

Iturria: geuk egina, literaturaren berrikusketan oinarrituta.

Nazioarteko merkatuetan enpresa ertainen erronkak

Ekonomiaz-en zenbaki honetan aztertutako enpresa ertainentzat oso ongi funtzionatzen dute ikuspegiaren pentsamoldeak (Kormann, 2005), balio handiko markak merkaturatzeak (Georges, 2017), berrikuntza dinamikorako gaitasunek (Bessant, 2018), eta nazioarteari begirako posizio zabalak (Simon, 2012); baina zenbait erronkari ere egin behar diete aurre. Ondoren, horietariko batzuk azalduko ditugu:

- Finantzak: aztertu ditugun enpresek kapitalaren gaineko errendimendu handia bilatzen dute, oro har, eta zor/kapital indize baxuak mantendu nahi dituzte bitartean (Brenes et al., 2017), eta hori faktore garrantzitsua da haien ibilbideak azaltzeko orduan. Hala eta guztiz ere, hedatzeko modu bizkorragoak (hazkunde ez-organikoa barne) kudeatzeko gaitasuna oztopa dezake horrek, hazkunde bizkorreko merkatu batean lider izaten jarraitzeko hala egin behar izanez gero (Ugarte, 2019; Venohr eta Kamp, 2019; Aernoudt, 2019). Hazkunde-egoera hori gertatzen bada, hazkundea finantzatzeko ordezko formulak kontuan hartu beharra azter daiteke.
- *Barne-presentzia*: desblokeoa *offshore* merkatuetan eta, batez ere, gorabidean dauden ekonomietan arrakasta komertzial jarraitua edukitzeko, epe ertainera saltzeko gaitasuna baino gehiago eduki behar da batzuetan; hau da, beharrezkoa izan daiteke ekoizteko gaitasunetan eta I+Gn presentzia fisiko indartsuagoa izatea ere, hazten ari diren merkatuetan barne-presentzia garatzeko (Venohr eta Kamp, 2019).
- *Eraldaketa digitala eta 4.0 Industria ezartzea*: industria osoak bezala, aztertu diren enpresek ere laugarren industria iraultzan sartu behar dute (Freimark *et al.*, 2018). Ugartek (2019) eta Hospersek (2019) argitara ekarri dute zein garrantzitsua den auzi hori garatutako ekonomietan dauden industria-enpresek lehiakortasuna mantentzen jarraitzeko. Teknologia berriak txertatzea garrantzitsua da, baina ez da «miopia teknologikoan» erori behar. Rammer eta Spielkamp (2019) eta Bessant (2019) egileek adierazi bezala, enpresaren arrakasta lortzeko teknologia aprobetxatu nahi bada, garrantzi handia du berrikuntzaren eta ahalmen teknologikoen kudeaketak. Ondorioz, berrikuntzari esker onurak lortzeko, kontua ez da teknologian inbertitzea soilik. Azkenik, 4.0 Industrian eta antzeko kontzeptu teknologikoetan sartzea erakundeetan behin eta berriz agertzen den auzi bat denez, inguruko atalak (balio-katea) 4.0 Industriaren prestakuntza-mailara ere iristen direla ziurtatzea gomendatzen da. Horregatik da hain garrantzitsua sare-ikuspegia hartzea eta zeregin horiek lortzeko lankidetza publiko-pribatuez baliatzea (Hospers, 2019; Johnson *et al.*, 2019).
- *Zerbitizazioa*: aztertutako enpresetako askotan, produktuko eta industriako ikusmoldea da nagusi, eta horrek oztopatu egin dezake zerbitzu-negozioa garatzeko eta zerbitzuari begirako mentalitatea sustatzeko bidea. Aldi berean, merkatu-nitxoko enpresek eskainitako produktu eta ondasun ugari bereziak eta espezializatuak direnez, txikitu egin daiteke produktu eta zerbitzu horiek bezeroentzako balioa sortzeko prozesuetan betetzen duten eginkizunaren funtsezko garrantzia eta, ondorioz, enpresek bezeroentzako soluzio integratuak eskaintzeko gaitasuna ere txikitu dezake horrek (Kamp, 2018).

- *Talentua erakartzea eta garatzea*: ildo honetan, bi lerro bereizi behar dira. Alde batetik, zein garrantzitsua den atzerriko talentua erakartzea enpresak mundu osoan arrakasta izateko (Ugarte, 2019; Venohr eta Kamp, 2019); eta zer ardura handikoa, halaber, tokian tokiko prestakuntza- eta heziketa-zentroekin elkarlanean aritzea (Hospers, 2019), eta giza baliabideetan inbertitzea (Rammer eta Spielkamp, 2019). Oro har, tokiko aukerak eta abagune globalak antolatzeko gaitasuna izatea esan nahi du horrek. Lankidetza publiko-pribatuak ere erabilgarriak izan daiteke, bereziki, toki-dimentsioa eta tokian tokiko talentuaren prestakuntza sustatzeko (Hospers, 2019; Johnson *et al.*, 2019).

Politikei buruzko gomendioak eta ikertzeko iradokizunak

Ikusita zer erronkari aurre egin behar dioten enpresa ertainek nazioartekotzeko eta merkatu globalean lider izateko, etorkizuneko politika eta ikerketak sustatzeko iradokizun hauek har daitezke kontuan:

- *Enpresa pribatuak sailkatzeko kategoria adierazgarriagoak erabiltzea*: enpresak sailkatzeko, langile kopurua erabili ohi da, honela banatuta: mikroenpresak (10 enplegatu baino gutxiago), enpresa txikiak (10 eta 49 enplegatu artean), enpresa ertainak (50 eta 249 enplegatu artean), edo enpresa handiak (250 enplegatu edo gehiago). Hala ere, kanpo-merkataritza eta nazioarteko negozioak sustatzeko, beharbada ez da kategorizazio egokiena. Hasteko, enpresa handien kategoriako enpresen artean, litekeena da jabeek zuzendutako eta tokiko sustrai sendoak dituzten enpresak egotea (mundu osoan sakabanatutako multinazionalen ordez), eta, beraz, tamaina ertaineko enpresa integratuen portaera izan dezakete. Gainera, arreta enpresen tamainan jarri ordez, adierazgarriagoa izan daiteke beste alderdi hauek aztertzea: jomugako merkatuen tamaina eta izaera (nitxoa edo bolumen handiko merkatua den, eta merkatu marjinala edo nagusia den), zer jarrera hartzen duten nazioarteko negozioetarako (adibidez, zer proportzio duten nazioarteko salmentek, guztizko negozio-bolumenarekin alderatuz gero, eta zerk bultzatzen dituen nagusiki salmenta horiek: adibidez esportazioak, Atzerriko Inbertsio Zuzenekoaren emaitza (IED), edo atzerriko bazkideekin lankidetzak eta aliantzak babestuta), eta zer estatus duen enpresa bakoitzak bere xede-merkatuan (liderra, lehiakidea, bigarren mailako jokalaria), merkatuan zenbat parte hartzen duen kontuan hartuta. Alderdi horretan, erreferentzia-puntu interesgarria izan daiteke enpresen nazioarteko negozioak zer garapen etapan dauden kontuan hartuz egitea segmentazioa, Euskadiko 2017-2020 aldiko Nazioartekotze Planean deskribatu bezala (ikusi 9. orrialdea)[4].
- *Nazioartean lider diren enpresa ertainen kopurua handitzea*: INML multzo sendo bat duten tokietan, oinarri hori hedatzeko eta/edo berritzeko lan egin

[4] https://www.spri.eus/archivos/2018/02/pdf/Enpresak_Nazioartekotzeko_2017-2020_Plana_final.pdf

behar da. Horrek esan nahi du, alde batetik, jomugan dituzten merkatuetan abangoardiako eragile izaten lagundu behar zaiela INMLei. Bestaldetik, txapeldunorde diren enpresak bilatu behar dira (hau da, nazioarteko merkatunitxoetan lider bihurtzeko ahalmena dutenak), eta lidergo hori lortzeko moduak adierazi. Horretarako, INMLek elkarrekin eta bigarren mailako enpresekin jardunbide egokiak partekatzeko edo kidekoen artean berrikusketa egiteko sistema bat ezartzea aurreikusi da. Azkenik, senidetze-mekanismo horiek arautandako erakunde baten bitartez gobernatu daitezke kalitate estandar espezifikoak betetzen dituztenak. Era berean, agentzia horrek ziurtagiri bereziak emateaz arduratzen dezake (adibidez, TEI (Txapeldun Ezkutuaren Izendapena) etiketa bermatu eta eman dezakeen kontseilu arautzaile bat ezar liteke. Horrez gain, INML multzo handi samarra duten eta ez duten udalerrien artean antzeko babes- eta tutoretza-sistemak ezar daitezke, bigarrenek lehenengoengandik ikasteko aukera izan dezaten.

- *INMLekin batera eragitea eta haiengandik ikastea*: adibidez, merkatuaren buruan jartzeko eta lidergoa luzatzeko abian jartzen diren mekanismoei buruz. Halako elkarrekintzen bitartez ikasitakoak haien eraso- eta defentsa-maniobrak zein diren jakiteko balio dezake merkatuaren lidergoa lortzeko, baita honelako galderei heltzeko ere: nola hauteman merkatuko aukerak? Nola posizionatu arrakastaz eta egoki (nitxo) merkatuetan, eta nola finkatu arrakasta? Ondorengo aurkikuntzek INMLen lehiakortasun-mekanismoak indartzeko, eremua prestatzeko eta horren arabera jarduteko balio dezakete. Lehiakortasuna hobetzeko jokabide hori aztertzeak ekarpen baliagarria egin dezake, gainera, berrikuntza estrategiko babesteko programak diseinatzeko garaian.
- *Finantzaketa lortzeko aukera erraztea*: enpresa ertain batzuek nahiago dute hazkundea beren baliabideekin bitartez finantzatzea, baina litekeena da beste zenbaitek kanpoko kapital-hornitzaileengana jotzea hazkundearen bidean aurrera egiteko. Batzuetan ezin da tokiko iturrietatik nahikoa babes finantzario lortu, baina sektore publikoak euskarri finantzariorako sarearen gabezia hori konpon dezake, finantza lortzeko ordezko bideak sortuz eta/edo bermeeskemak edo tarteko finantzaketarako tresnak emanez.[5]
- *Enpresa ertainen eta ezohiko finantza-zerbitzuen hornitzaileen arteko loturak sustatzea*: zerbitizazio-eragiketak eta enpresen garapen/hazkunde orokorra finantzatu egin behar direla kontuan harturik, eskuarki kanpoko kapitala behar izaten dute enpresek. Negozio-ereduak eta hazkunde-operazioek kategoria edo izaera berritzailea dutenean, gerta daiteke ohiko finantza-erakundeak eginkizun horretarako prest ez egotea. Beraz, interesgarria iruditzen zaigu hazten ari diren enpresei laguntza ematea beren finantza-iturrien konbina-

[5] Bankuaz gain kanpo-finantzaketa lortzeko aukera emango duten tresnak, konpainiaren jabetza galdu gabe.

zioa eta teknologia finantzarioko enpresetara eta industria-aktiboak kudeatzeko enpresetara bideratzea. Euskadin gaur egun abian den ekimen batekin paralelismoa egiteko: BIND 4.0[6] programak finkatuta dauden industria-enpresen eta enpresa sortu berrien artean zubiak eraikitzeko asmoa duen bezala, esan daiteke industria-enpresak direla, batez ere, historia luzea dutenak, eta azken belaunaldiko finantza-erakundeak ezagutzen dituztela.

- *Enpresa ertainei eta nazioartekotu diren enpresei laguntza ematea, merkatua garatzeko eta lehia-adimena izateko, merkatuko lider izan daitezkeen tokietan*: gaur egungo testuinguruan globalizatu eta sofistikatu egin dira gorabideko ekonomiak, eta atzerrian habia egiteko, zuhur jokatzea izan daiteke kontua, gero eta gehiago. Beraz, garrantzitsua da enpresa ertainak adimen-sistemaz hornitzea, datu handiekin eta eguneratuekin modu intentsiboan lan egin dezaten, gure garaiko ahalmen adimendun eta semantikoetan oinarrituta. Era berean, zentzuzkoa da kapital handia eskuratzeko moduak erabiltzeko babes espezifikoa ematea (adibidez, ekoizpeneko eta I+Gko jardueretarako), merkatu horietan presentzia izatea sustatzeko bitarteko gisa. Horrez gain, egokitzat ikusten dugu haiei gaitasun sozialak garatzeko laguntza ematea, arazorik gabe lan egin ahal izan dezaten leku horietan eta atzerriko enpresek zuzendutako balio-kateetan funtsezko jokalari bihurtzeko aukera handiagoa izan dezaten; horrela, beste batzuek ere haien arrakastan parte hartzeko bide-urratzaile izan daitezke.
- *Enpresa ertainak mentalizatzea, atzerrian eta etxean gorabideko ekonomietako enpresekin negozioak egiteko*: gerta daiteke enpresak atzerriko pareekin negozioak tokian bertan egitera ohituta egotea eta, hori horrela, hasiera batean zentzugabetzat jo liteke gorabideko ekonomietako multinazionalekin negozioak haien tokiko edo kontinenteko merkatuan egiteko ideia. Hala ere, Latinoamerikako herrialdeetako eta Asiako ekonomia handietako gaur egungo multinazionalek zuzeneko kanpo inbertsiora Atzerriko Inbertsio Zuzenekoaren bitartez eta mendebaldeko konpainiak erostera jo dezakete nazioarteko negozioak hedatzeko, esportazioek sustatutako bideari jarraitu ordez. Ildo horretan, Japoniako eta Hego Koreako konglomeratuen jardueraren ohiko joerarekin alderatuz gero (tokiko mailan haztea), bestelako jokabidea izan dezakete.
- *Industria-enpresa ertainei pizgarriak ematea 4.0 Industria kontzeptua osorik ezar dezaten*: azkenik, laugarren industria-iraultza ez da enpresa barruko konektagarritasunera mugatuko, eta haren ondorioz balio-kate osoan egingo

[6] Eusko Jaurlaritzaren laguntza-programa, *startup* enpresen bitartez enpresa handien eraldaketa sustatzeko, ekintzaileon azelerazioa lortzeko eta nazioarteko talentua erakartzeko. Izena hitz-joko bat da: batetik, Euskal Industria Digitalizatzeko *Basque Industry* estrategiaren hasierako hitzak dira, eta bestetik, ingelesez elkarrekin lotzea esan nahi du to bind aditzak, eta enpresa traktoreak eta *startup* enpresak elkartu nahi ditu programak.

dira plantaz plantako kudeaketa eta prozesuen kudeaketa. Gainera, eraldaketa digitala sartzeko prestatuko dira enpresak, ez soilik fabrikazioaren eremuan, baita bezeroekiko harremanak eta merkatuarekiko elkarrekintzak kudeatzeko moduan ere, oro har. Lehiakortasun iraunkorra lortzeko, enpresa ertainak bi bideetatik jarraitzera animatu behar dira.

- *Zerbitizazioa ezartzea industria-politikak formulatzeko funtsezko atal gisa*: etorkizuneko industria-merkatuetan lehiakorrak izateko, garrantzitsua da fabrikatzaileen artean zerbitzura begirako logika sustatzea eta nagusitzea. Zerbitzu mentalitate hori hartzea ez da enpresa pribatuentzat soilik; politika publikoak arduradunen eginkizuna ere bada. Politikak formalizatzeko arduradunek, gainera, gailendu den pentsamoldea aldarazi behar dute. Bereziki industriako politiketan esku hartzen dutenentzat, garrantzitsua da ikuspegi holistikoak proposatzea, lehiakortasunaren ekuazioaren barruan sar daitezen zerbitzuak eta zerbitizazioa, eta ez daitezen enpresa fabrikatzaileen testuinguruaz kanpo utzi.
- *Lehiakortasuna eraikitzeko oinarri diren talentu taldea eta enplegatuak multinazionalizatzea*: gero eta gehiago globalizatzen diren merkatuetan edo atzerriko herrialdeak merkatu lider gisa jarduten duten sektoreetan lan egiten denean, ezinbestekoa da lanerako indar multinazionalak edukitzea. Gainera, funtsezkoa da, kontuan hartzen badugu zer garapen izan duen atzerriko merkatuetako presentziak. Ondorioz, interesgarria iruditzen zaigu nazioartean jarduten duten enpresei bultzada ematea, askotariko ibilbideak eta aurrekari nazionalak dituzten lantaldeak erakarri eta biltzeko. Era berean, unibertsitateek, goi-mailako hezkuntzako beste erakundeek eta, nazioarteko enpresa ertainen kontzentrazio handiak guneetan badaude, baita ikerketa eta teknologia zentroek ere, multinazionalago bihurtu beharko lituzkete beren irakasle eta ikertzaile taldeak. Goi-mailako hezkuntzako zentroei dagokienez, merezi du (zenbait) prestakuntza programa *lingua franca* batean edo gehiagotan eskaintzea, eta gorabideko ekonomietako ikasleentzako programak sustatzea.

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Presentation

Interest in mid-sized firms as contributors to foreign trade and economic resilience goes a long way back (see Bonaccorsi, 1992; Shama, 1993), and this interest has been strengthened in recent times through a growing attention for hidden champion-type firms and the Middle Market as a specific segment amidst the demography of enterprises. This occurred not in the least because of societal concerns with the resilience of Western economies since the outbreak of the financial crisis and the credit crunch around the year 2008. Due to these turbulences, internationalized companies -and particularly those that operate in an export-driven manner- have been considered as important elements to make economies more shock-proof (Dallago *et al.*, 2012).

The above-indicated interest has, however, been uneven when comparing policy and consultancy circles with academic and scientific circles.

On the one hand, policy makers and practitioners have steadily increased their focus on mid-sized firms with a strong (international) market position[1] and on the Middle Market as a pool of companies to which the former firms pertain.[2] Arguably, this is due to the fact that these firms align well with policies that have a picking winner or a spreading best practices character, and because they help to legitimize smart specialization strategies. Furthermore, companies that act as international niche specialists are attractive role models since they show how firms of a surveyable size manage to diversify their sales across the globe, thus raising their robustness against downturns in particular (national) markets. At the same time, from an economic geography perspective these companies form great assets since they contribute strongly to several economic indicators while the dependence of a region or nation upon them tends to be limited.[3]

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1 See for instance the latest «Plan de Internacionalización 2017-2020» from the Basque Government and the Koalitionsvertrag between the CDU and the SPD from 2018 in Germany, as well as dedicated policy support programmes in Taiwan and South Korea.

2 See for instance studies by GE Capital and Warwick Business School (2013) or Ernst & Young: https://www.ey.com/en_gl/growth-barometer.

3 That is: provided a certain density of these firms can be found in a locality and one considers at least NUTS 2-level localities («regions») and not individual city levels.

On the other hand, publications with a clear focus on these kinds of firms in scientific journals have been very sparse. I.e., when looking at the top 5 journals in International Business (Tüselmann *et al.*, 2016), one observes how in the past 10 years no article has appeared that takes hidden champions or the Middle Market explicitly as its point of departure.

While mid-sized firms leading international markets could serve as very interesting research objects to be analyzed, e.g. regarding their internationalization behavior, their timing of market entry mode decisions and their deployment of first or second mover advantages, the truth is that methodological sound and systematic research to examine the strategic behavior or competitive characteristics of these kinds of firms has yet to live up to its potential. In fact, what may have been holding back a breakthrough in research about the firms in question is the rather sketchy operationalization of what they stand for. This is probably not so much a problem with Middle Market firms, where the discussion may simply be about the upper and lower threshold in terms of annual turnover of the firms considered. But it certainly can be a problem for research around hidden champions, where there are quite a lot of definitional loose ends. Hence the ambition of this Ekonomiaz edition to sharpen the terminology and operationalization of the research objects in question, while referring to them as, e.g. international or global niche market leaders.

Structuring the respective contributions

The present edition of Ekonomiaz consists of two parts. The first part is formed by topical contributions to the issue of *Internationalization of mid-sized firms and global market leadership*. The second part consists of regular articles that touch upon other topics.

Topical contributions

Specifically, the present edition of Ekonomiaz provides a baseline of research on internationalization and market leadership questions around mid-sized firms through a collection of articles that analyze their distinctive features (**Georg Jungwirth** and **David König**, 2019) and modus operandi (**John Bessant**, 2019), address some of the contemporary challenges they face (**Bernd Venohr** and **Bart Kamp**, 2019), and look at implications for policy making and business strategy (**Rudy Aernoudt**, 2019; **Gert-Jan Hospers**, 2019; **Jerker Johnson**, **Johanna Dahl** and **Åge Mariussen**, 2019; **Josu Ugarte**, 2019).

In parallel, several of the articles in this Ekonomiaz edition push the methodological and operationalization envelope on research around the companies in question (**Christian Rammer** and **Alfred Spielkamp**, 2019; **Venohr** and **Kamp**, 2019), whilst it also includes articles that provide accounts of the number of International Niche Market Leaders (INMLs) or hidden champions that exist in specific economies across Europe (**Rammer** and **Spielkamp**, 2019; **Kamp**, 2019).

Similarly, the contributions can be divided into articles that adopt a national focus to the subject at hand (**Rammer** and **Spielkamp**, 2019; **Jungwirth** and **König**, 2019), and articles that include a regional angle to their analyses (e.g. **Hospers**, 2019; **Johnson** *et al.*, 2019; **Kamp**, 2019). The latter thus also link to discussions on sub-national cultural specificities or intra-country cultural diversity (Beugelsdijk *et al.*, 2017). In addition, the contributions of **Aernoudt** (2019), **Hospers** (2019), **Johnson** *et al.* (2019) and **Kamp** (2019) look into distribution patterns of high performance mid-sized enterprises across territories in function of specific spatio-economic features (industrial activity, company size, access to funding), policy support measures and systems of capitalism. By doing so, they provide insights into questions on the company types that one can encounter in respective economies (in line with works of Audretsch *et al.*, 2018; Bleuel, 2018; Lehmann *et al.*, 2018).

Regular contributions

Under this header, we encounter two articles. The first, by **Noemí Angulo** and **Amaya Angulo**, describes the current system of the assignation of the competent body on conflict resolution issues between the National Competition Authority and the regional authorities. These conflicts arise because of breaches in the Spanish State Law on Competition.

The second one by **Xavier Labandeira**, **Alberto Gago**, **Xiral López** and **José Mª Labeaga** analyzes the possibilities of reforming energy-environmental taxation in Spain as part of a wider strategy of climate change mitigation. After studying the theoretical context of these taxes in a federal framework and some relevant international experiences, the paper evaluates the utility and feasibility of these taxes in subnational jurisdictions. In Spain, the current situation of these taxes is characterized by the disinterest of the central government and the lack of coordination of regional initiatives.

Anthological highlights from the topical contributions

The remaining three sections are dedicated to outlining: a) Distinctions between *Mittelstand* and Middle Market, b) Challenges for mid-sized firms in international markets; and c) Policy recommendations and research suggestions, which follow from the topical contributions

Mittelstand and Middle Market

A concept that is often associated with hidden champions, is the so-called *Mittelstand*. Contrary to what the available literature on hidden champions from German-speaking territories (e.g. Simon, 2012; Audretsch *et al.*, 2018; Bleuel, 2018) insinuates, the publications by Bessant (2019), Hospers (2019) and Kamp (2019) provide evidence of the presence of this company type outside the Germanic business world. Moreover, they call into question the umbilical cord between hidden champions or INMLs and the *Mittelstand* concept. That is, especially if one interprets *Mittelstand* from a wider angle than just a size perspective. For instance, several of the company cases reviewed in the present Ekonomiaz edition show that hidden champions/INMLs do not have to abide to the «rule» of non-separation of ownership and management at these firms nor do they need to have a family business background.

As several of the contributions refer to the Middle Market (notably Ugarte, 2019; and Kamp, 2019) as a framework for company size demarcation, while others refer to *Mittelstand* (notably Rammer and Spielkamp, 2019; and Hospers, 2019), it may be indicated to juxtapose the two concepts on headlines.

Table 1. ***MITTELSTAND* AND MIDDLE MARKET IN TERMS OF COMPANY SIZE**

	Mittelstand	Middle Market
Upper end	Between 250-3000 employees and/or 50-250 million euros	100 million euros-1 billion euros
Middle segment	Between 10-250 employees and/or 2-50 million euros	50-100 million euros
Lower end	Below 10 employees and/or 2 million euros	20-50 million euros

Source: compiled by the author and based on Röhl (2017, 2018), National Center for the Middle Market (2011) and GE Capital and Warwick Business School (2013).

Table 2. ***MITTELSTAND* AND MIDDLE MARKET IN TERMS OF GOVERNANCE ARRANGEMENTS**

	Mittelstand	Middle Market
(Non-)separation between ownership and management	Non-separation	Is not a distinctive feature; neutral on this aspect
Family business	The norm	Is not a distinctive feature; neutral on this aspect

Source: own elaboration based on literature review.

Challenges for mid-sized firms in international markets

While the focus mentality (Kormann, 2005), marketing of high value brands (Georges, 2017), dynamic innovation capabilities (Bessant, 2018) and a broad internationalization posture (Simon, 2012) function very well for the mid-sized firms that the present edition of Ekonomiaz has scrutinized; they also face challenges. Below we point out some of them:

- *Finance*: The firms in question typically seek high return-on-equity while maintaining low debt-to-equity ratios (Brenes *et al.*, 2017) and this is an important explanatory factor behind their sustainable growth trajectories. However, it could hamper their ability to manage more rapid forms of expansion (including non-organic growth) if that would be needed to remain a leading player in a fast-growing market (see Ugarte, 2019; Venohr and Kamp, 2019; or Aernoudt, 2019). If such growth circumstances occur, it may generate a need to consider alternative forms of growth financing.
- *Insidership*: Sustained commercial success on unlocking offshore markets, particularly in emerging economies, may require a stronger on-site presence than merely having sales capacity in place. In fact, it may imply the need for a stronger physical presence in the form of production and R&D activities, thus developing «insiderisation» in such growth markets (see Venohr and Kamp, 2019).
- *Digital transformation and uptake of Industry 4.0*: Just like industry at large, the firms under consideration need to get to grips with the fourth industrial revolution (Freimark *et al.*, 2018). Particularly Ugarte (2019) and Hospers (2019) stress the importance of this issue for sustained competitiveness of industrial firms in developed economies. While the incorporation of new technologies is important, at the same time one must avoid becoming prey to «technology myopia». As Rammer and Spielkamp (2019) as well as Bessant (2019) point out; to leverage technology for business success; management of innovation and technological capabilities is of great importance. Consequently, return-on-innovation is not just a matter of investing in technology. In addition, since getting to grips with Industry 4.0 and the like will often be an inter-organizational affair, it is indicated to ensure that also surrounding (value chain) parties attain Industry 4.0 readiness levels. Hence the relevance of adopting a network approach to and employing public-private partnerships for such assignments (see Hospers, 2019; as well as Johnson *et al.*, 2019).
- *Servitization*: The product and industrial mentality that predominates in many of the firms under examination may obstruct them on their way to developing their service business and to articulate a service-oriented mentality. In parallel, the specialty character of many products and goods that niche players provide can diminish the centrality that these items play in the value creation processes of their clientele and hence reduce these firms' airplay for providing integrated solutions to their customers (Kamp, 2018).
- *Talent recruitment and development*: In this regard there are two strands to be distinguished. On the one hand, there is the importance of incorporating foreign talent for global business success (as indicated by Ugarte, as well as Ve-

nohr and Kamp, 2019). On the other hand, there is the issue of cooperating locally with training and education centers (as highlighted by Hospers, 2019) and of investing in human resources (Rammer and Spielkamp, 2019). Altogether this becomes then a matter of competences to orchestrate local buzz and global pipelines. Particularly to support the local dimension and the preparation of local talent, public-private partnerships can be useful as well (see Hospers, 2019; as well as Johnson *et al.*, 2019).

Policy recommendations and research suggestions

In the light of the challenges that mid-sized firms face in their quest for internationalization and global market leadership, the following implications for policy support and future research can be envisaged:

- *Segment private enterprises into more meaningful categories*: the conventional way of classifying companies is through their number of employees and to distinguish between micro enterprises (fewer than 10 employees), small enterprises (10 to 49 employees), medium-sized enterprises (50 to 249 employees), or large enterprises that employ 250 or more people. However, for the sake of fostering foreign trade and international business, this may not be the most adequate categorization. To start with, among those firms that fall under the large enterprise category, there may be companies that are owner-operated with strong local roots (as opposed to globally dispersed multinationals) and thus behave like embedded mid-sized firms. Moreover, rather than focusing on the size of companies, it may be more relevant to look at the size and character of the markets that companies address (whether it is a niche or large volume market, and whether it concerns a fringe or mainstream market), the international business posture they adopt (e.g. the share of international sales vis-à-vis total turnover and whether these sales are chiefly export-driven, fruit of Foreign Direct Investment, or supported by Joint Ventures and Alliances with foreign partners), and the status of firms in the respective markets they address in function of their market share (leader, contender, also-runner…). The segmentation in function of the international business development stage of companies as followed in the Plan de Internacionalización del País Vasco 2017-2020 (see p. 9)[4] serves as an interesting point of reference in this regard.
- *Grow the pool of internationally leading mid-sized firms:* localities that have a set of INMLs should work on expanding and/or renewing this basis. On the one hand, this implies helping INMLs to remain a vanguard actor in the markets they address. On the other hand, it implies scouting runner-up

4 https://www.spri.eus/archivos/2018/02/pdf/Plan_Internacionalizacion_2017-2020_Pais_Vasco_Final.pdf

firms with the potential to convert themselves into leaders in international niche markets and pointing out ways to attain market leadership. To that end, a system of good practice transfer or peer reviewing among INMLs, and between established INMLs and runner-up firms can be foreseen. Eventually, such twinning mechanisms can be governed by a body that ensures that the exercises undertaken adhere to specific quality standards. Similarly; such a body can also be made responsible for issuing specific certifications (cfr. a kind of «consejo regulador» that can warrant and grant, for instance, a «DOC» label: «Denominación de Campeón Oculto»). Similar godfathering and mentoring schemes can also be instituted between localities that do and localities that do not shelter a considerable pool of INMLs, in order for the latter to learn from the former.

- *Interact with and learn from INMLs:* e.g. with regard to the mechanisms they deploy to conquer and prolong market leadership. Insights to be obtained from such interactions can serve to learn about their offensive and defensive maneuvers with regard to conquering market leadership, and to address questions like: how do they detect market opportunities, position themselves successfully and timely in (niche) markets and consolidate their success in them? The subsequent findings can both serve to strengthen the competitiveness mechanisms of the proper INMLs, and to prepare the ground for others to act accordingly. Studying such competitiveness enhancing behavior can also serve as an input to the design of programmes in support of strategic innovation behavior.
- *Facilitate access to funding:* while there will be mid-sized firms that prefer to finance growth by means of own resources, there can be others that decide to recur to external capital providers to pursue their growth path. Whilst getting sufficient back-up from local sources is not always possible, the public sector can resolve this network failure by creating conduits with alternative financiers and/or by providing guarantee schemes or mezzanine financing instruments.[5]
- *Foster ties between mid-sized firms and non-conventional financial service providers:* both in view of financing servitization operations and general company development/growth, companies typically require external capital. Whenever those business model and growth operations have a hors catégorie or novel character, conventional financial entities may not be up for the task. Hence it is deemed interesting to help firms to broaden their finance mix and orient themselves towards fintech companies and industrial asset management firms. To draw a parallel with a current initiative in the Basque Cou-

[5] Instruments that allow access to external non-banking finance, without losing company ownership.

ntry: in the same manner that the BIND 4.0[6] programme sets out to build bridges between consolidated industrial companies and start-ups, it may be indicated to get industrial firms, especially long-established ones, acquainted with last generation financial entities.

- *Assist internationalized and internationalizing mid-sized companies with developing market and competitive intelligence in places with lead market potential:* in the current context of globalization and sophistication of emerging economies; finding and exploiting an international niche market may become more and more a question of clever nesting behavior abroad. Hence it is important to endow mid-sized firms with intelligence systems that are (big) data intensive and up-to-date with the smart and semantic capacities of our time. Similarly, it makes sense to provide specific support them when they consider applying high equity entry modes (e.g. for production and R&D activities) as a means to foster insidership in such markets. Additionally, it is deemed appropriate to help them to nurture soft skills to operate smoothly in such places and raise their chances to become pivotal players in value chains directed by foreign enterprises, enabling them also to act as way-pavers for others to piggy-back on their success.
- *Mentalize mid-sized firms for doing business with companies from emerging economies abroad and at home:* while they may be accustomed to doing business with foreign counterparts in situ, the idea of doing business with emerging economy multinationals in their home market or continent may be counter-intuitive. However, present day multinationals from Latin American countries and from large Asian economies may choose to expand their international business via Foreign Direct Investment and take-overs of Western companies instead of following an export-driven path. In this sense their modus operandi may be different from the (home-grown) Leitmotiv that Japanese and South Korean conglomerates typically follow.
- *Incentivize industrial mid-sized firms to embrace the Industry 4.0 concept in a full-fledged manner:* eventually, the fourth industrial revolution will not be limited to intra-plant or intra-company connectivity, but will also lead to plant-to-plant and value-chain wide process management. Additionally, it will lead companies to apply digital transformation not only to the manufacturing realm, but also to the way they manage customer relationships and market interactions overall. In view of sustained competitiveness, mid-sized firms should be stimulated to follow both paths.

[6] Aid programme by the Basque Government to boost the digital transformation of large companies through collaboration with start-ups, the acceleration of these entrepreneurs and the attraction of international talent. Its name comes from a play on words with the initial letters of the Basque Industry Digitalization of Basque industry strategy, and from the English verb to bind, which aims to unite leading companies and start-ups.

- *Take servitization up as an integral part of industrial policy making:* fostering a service-dominant logic among manufacturing firms is important for competitiveness in tomorrow's industrial market places. Adopting a service mindset is not only an issue for private enterprises, but also an assignment for policy makers. Particularly for those concerned with industrial policies it is important to come up with holistic approaches that view services and servitization as part of the industrial competitiveness equation, and not as something that is exogenous to the business context of manufacturing firms.
- *Multinationalize the talent pool and employee base from which mid-sized firms build their competitiveness upon:* when operating in markets that globalize increasingly or in sectors where foreign countries act as lead markets, it is vital to count with multinational labor forces. The former is also essential in view of developing insidership on foreign markets. Consequently, it is deemed of interest to encourage mid-sized firms that operate internationally to recruit and assemble teams with diverse national backgrounds. Similarly, universities and other high education institutions as well as research and technology centers in places with strong concentrations of internationalized mid-sized firms should multinationalize their lecturing and researching staff. As far as higher education centers are concerned, it is also worthwhile that they offer (part of their) training programmes in one or more *linguae francae* and canvas their programmes towards students from emerging economies.

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The role of sustained innovation in the competitiveness and longevity of Hidden Champions

This paper explores the case of Hidden Champion firms and in particular looks at the role which innovation plays in enabling them to sustain their position as internationally competitive organizations over a long period. It draws on primary and secondary material to explore six cases in detail and identifies five key attributes which make up their 'innovation capability' – building a strong knowledge base, developing extensive high performing networks of collaborators, embedding innovation routines to enable them to repeat the innovation trick, wide exploration of available innovation space and developing dynamic capability – the ability to review, reconfigure and change their innovation models and approaches to suit a constantly changing external environment.

Este artículo explora el caso de las empresas denominadas 'Campeones Ocultos' y en particular estudia el papel que la innovación juega en capacitarlas para el sostenimiento de su posición como organizaciones competitivas e internacionales a largo plazo. El artículo se basa en documentación básica y derivada para explorar en detalle seis casos e identificar cinco atributos claves que constituyen la 'capacidad de innovación': construir una base fuerte de conocimiento, desarrollar redes extensivas de colaboradores de alto rendimiento, incorporar rutinas de innovación para permitirles repetir el secreto de la innovación, una exploración amplia del espacio de innovación disponible, y desarrollar la capacidad dinámica, esto es, la capacidad de revisar, reconfigurar y cambiar sus modelos y enfoques de innovación con el fin de adecuarlos a un entorno externo en constante cambio.

Artikulu honek «Ezkutuko Txapeldunak» izeneko enpresen kasua aztertzen du eta, bereziki, enpresa horiek epe luzean organizazio lehiakor eta internazional gisa mantentzeko berrikuntzak nola gaitzen dituen. Artikuluak lehen eta bigarren mailako materialak ditu oinarri sei kasu zehatz-mehatz aztertzeko eta «berrikuntza gaitasuna» osatzen duten bost atributu gako identifikatzeko. Bost atributu horiek honakoak dira: ezagutzaren oinarri sendo bat eraikitzea, errendimendu handiko kolaboratzaileen sare zabalgarriak garatzea, berrikuntzaren sekretua errepikatzea ahalbideratzeko berrikuntza-ohiturak txertatzea, eskuragarri den berrikuntza-espazioaren esplorazio zabala eta gaitasun dinamikoa garatzea; hau da, dituzten berrikuntza-eredu eta -ikuspegiak berrikustea, birkonfiguratzea eta aldatzea, etengabe aldatzen ari den kanpoko ingurunera egokitzeko.

John Bessant
Exeter University

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1. **INTRODUCTION**

What are you having for breakfast today? Chances are there might well be some cheese, perhaps a yogurt, or some delicately coloured juice drink on your table. It might interest you to know that you are in good company – around one billion people like you are consuming one of the many products enabled by the Danish company Christian Hansen. For nearly two hundred years they've been supplying a huge range of live bacterial cultures to the food industry around the world. Their natural food colours are also extensively used and they have a growing presence in the field of healthcare via probiotics.

If you paid in cash when you went shopping for those breakfast delicacies then there is a pretty good chance that the banknotes you exchanged were made by another company, De La Rue. They too have been working in their chosen business niche for about two hundred years, specialising in high precision printing. They got off to a good start, inventing the modern playing card in 1831 and diversifying through postage stamps, identity documents and high security products like banknotes.

Cleaning up after breakfast you might well reach for your vacuum cleaner. These days there's a good chance it'll be a Dyson – one of a growing range of domestic electrical appliances characterised by powerful motors and innovative airflow features. Compared to our previous examples the Dyson company is a new kid on the block but one which in forty years has grown from a start-up to a significant global player with revenues around €3bn and close to 9000 employees.

Turn on your air conditioner (or possibly your heating system) and the chances are the pump driving it is made by the German company Wilo. Another long-established firm, Wilo was founded in 1872 and has evolved into one of Europe's most successful manufacturers of pumps for a wide range of domestic and industrial applications.

Hop into your car – and spare a thought for the various lights attached to it. Headlights, sidelights, indicators, brake lights – there's a pretty good chance that they will be made by another hidden champion, the German company Hella (or to give it its full title, Hella KGaA Hueck & Co). They are also significant players in the expanding and exciting world of automotive electronics, playing a key role in developing driverless car possibilities.

And if you ever need your car (or aeroplane or truck) modified, upgraded or configured for some special application there's a good chance you might approach the Marshall Group in the UK. Once again a major global player, especially in the specialised area of adaptive engineering, one which has grown successfully from its roots in 1909 providing engineering support for cars and aircraft.

We could go on but the point is clear. These are mostly not household names – indeed many of them operate in business-to-business markets below the radar screen as far as most consumers are concerned. They are examples of hidden champions, quietly getting on with the job of being very good at what they do and innovating on a continuing basis to ensure they preserve their competitive edge. It might be tempting to see them as fortunate niche players, comfortably placed in quiet markets and insulated from competitive pressures. But this is not the case – they operate in highly competitive global markets and have managed to hold their own and defend their position, often against much larger rivals. And they also share another characteristic – they moved early in their development to work in international markets, and are now significant export performers with an extended footprint of manufacturing and R&D operations around the globe. Table 1 summarises their achievements.

The term hidden champion was coined back in 1996 by Hermann Simon who looked at the characteristics of some of 'the world's best unknown companies' (Simon, 1996). Research suggest that there are hundreds of other examples whose names are not well-known but which have become major players in their chosen niche (Simon, 2009). They tend to be successful performers on a global stage – for example one study of 200 German examples suggested they maintained a growth rate more than three times the German average over the next decade (Venohr and Mayer, 2007).

Table 1. **HIDDEN CHAMPIONS**

Company	Founded	Current sales (€bn)	International sales activity	Active operations outside home country (including R&D)	Current employees
Christian Hansen	1873	€1	52 % outside Europe	30 (4 R&D centres)	3050
De La Rue	1813	€0.3	73% outside Europe	25	3150
Marshalls	1909	€1.6	Won UK Queen's Award for International Trade, 2016	Extensive international partnerships, especially in aerospace	5000
Wilo	1872	€1.5	48% outside Europe	60	7700
Hella	1899	€6	32% outside Europe	35	34,000
Dyson	1980	€3	81% outside Europe	4	9000

Source: Own elaboration.

Hidden champions are predominantly small/medium sized enterprises (SMEs) with most having a turnover below $1bn and an employee profile reflecting that. Whilst some have continued to expand they retain many of the characteristics of the earlier generations of the business, and in particular the commitment to tight focused leadership.

2. SMART SURVIVORS – THE KEY ROLE PLAYED BY INNOVATION

Above all hidden champions are survivors. Any organization might get lucky once or twice but to survive over the long-term requires a lot more effort and conscious attention. Our examples are typical – many hidden champions are decades old and a significant number are members of the '100 club' – companies which have celebrated their hundredth anniversary.

Their survival is not about scale. They offer an important reminder that big is not necessarily beautiful; while it might mean organizations have extra resources to draw upon when times get difficult this alone does not guarantee survival. The statistics on membership of the Dow Jones index give a sobering reminder of that –

of the large corporations which were present in 1900 only General Electric made it through to the year 2000 (Foster and Kaplan, 2002). And recent survival rates have been getting worse (Reeves and Pueschel, 2015).

Studies of 'centenarians' and even older organizations suggest that they share a number of traits which we also find in hidden champions – for example continuing to build and connect with diverse external networks to avoid stagnation or becoming trapped in particular technology or market fields (Reeves, Levin and Ueda, 2016). Their survival is also about core values which pervade the company and bind it together in ways which structures and departments may not. Several of our examples stress innovation and entrepreneurship as core values, emphasising behaviours which seek new opportunities and explore in novel directions and rewarding and reinforcing such behaviours. For example, the principle of 'entrepreneurial responsibility' is deeply embedded in Hella's approach over generations, expressing both the requirement that employees contribute their ideas and the responsibility of managers to create the context in which those ideas can be built upon to create value[1].

It is also significant that several of our hidden champions – and a significant number of hidden champions examined in other studies – are private companies, able to shape their own strategies without reference to external stakeholders. Marshalls is still run by members of the family while Hella was also a family concern until 2016 when a portion of the company was floated on the German stock exchange.

Survival involves an approach which by its nature is agile and resilient. These might be 'buzz' words today but essentially they characterise what these players have been doing for an extended period of time. They have survived and grown through an ability to navigate stormy waters and to weather often difficult external market and technological conditions.

Above all it requires a commitment to innovation – being prepared to change what the company offers and how it creates and delivers that offering. Such innovation behaviour is not about having a lucky new product or service at the right time, or a magic machine which enhances productivity. It is about a sustained organised commitment to embedding innovation as 'the way we do things around here' and the underlying structures and processes to enable it to happen.

One particular mode of innovation in which hidden champions excel involves what could be called 'position' innovation – extending and exploring their market base. The process of positioning products and services in new seg-

[1] The concept of 'entrepreneurial responsibility' was presented by Jürgen Behrend, owner and Managing Partner of Hella at a meeting at the HHL Business School in Leipzig in 2012 discussing innovation in industry. It refers to the company's underlying value system he described as 'entrepreneurial responsibility'. He explained it as a two-sided social contract – the expectation that employees will play a part, will take on the role of innovation champions. And the responsibility amongst senior managers to create the conditions in which they are able to do this.

ments or geographical regions requires effort and involves risk but the evidence is that firms which do so find powerful new learning opportunities. Swimming in unfamiliar oceans builds capabilities – firms have to adapt products and services, develop complementary networks, partner with new collaborators and learn about differences in user needs. As a result they are not only able to extend their export shares but also to make use of such new knowledge in their wider innovation offerings (Crespii, Criscuolo and Haskel, 2008) (Silav, Afonso and Africano, 2012).

Our example companies have been doing this for a long time – for example, Christian Hansen began working in the US market a mere five years after the company was established and very soon had a factory working there. De La Rue can trace its international footprint back to 1860 when it began printing currency for the island of Mauritius and by 1862 the US Confederate states were using postage stamps produced by the company.

Building capability to organize and manage innovation across multiple dimensions – product/service, process and position – is of central importance. But there is also a need for what might be termed 'dynamic capability', constantly reviewing the ways they innovate and being prepared to change or adapt the fundamental model underneath. Such 'innovation model innovation' helps the organization move on from its initial entrepreneurial start-up model to one which can deliver the agility and resilience which we described earlier.

This article explores in more detail the ways in which hidden champions work with innovation as a strategically managed process and the ways in which this helps underpin their survival and growth.

3. **UNDERSTANDING THE INNOVATION ENGINE IN HIDDEN CHAMPIONS**

Behind every global business there was once an entrepreneur (or two) – Henry Ford, William Procter and James Gamble, Bill Hewlett and Dave Packard, George Eastman are good examples. Making the journey from those early days to where those companies are today wasn't easy and involved negotiating a series of strategic challenges along the way.

Each of our examples also began as a start-up – an entrepreneur spotting an opportunity. For David Marshall it was the idea of using the new idea of motor cars to provide an early chauffeur-driven taxi service in the town of Cambridge in 1909. And for Sally Windmüller it was the chance to take his business selling whips, horns and lights as accessories for the horse-drawn vehicles of his time and apply these skills to the newly emerging world of motor cars, founding his company (Hella) in 1899. For Christian Hansen it was the research he was doing on digestive enzymes which gave him a clue about the need for a business to produce products like rennet – his was a very early example of a science-based university spinoff. For Thomas de la Rue it was adapting the emerging science of typography to specialist stationery production – including inventing the modern playing card.

Caspar Opländer's original factory in 1872 was set up to produce copper and brass distillation equipment for the drinks industry. Wilo developed from this primarily through a commitment to innovation, developing the world's first heating pump in 1928. And although James Dyson is a relatively recent addition to this group he too began life as a start-up and his autobiography describing his early struggles to innovate is well titled – 'Against the odds'! But his persistence paid off and the business is now a world leader in domestic appliances, motor and flow technology and now electrical storage systems (Dyson, 1997).

For each of them the bright idea which got them started was just the beginning of a long innovation journey, one which forced them to adopt an approach which was both agile and resilient. Growing through innovation not only involves negotiating in a turbulent world of changing technologies, markets and competition, it also involves the need for reviewing and changing the innovation model itself. And it requires a different approach, putting structures and processes in place where there was once fluidity and informal exchange. Striking the balance between creativity and control, between exploration and exploitation, between do better and do different – these are the day-to-day challenges of organizations moving from entrepreneurial start-up mode to long-term large-scale activity.

So how do such organizations build the foundations for long-term sustained innovation-led growth? Extensive research (Tidd and Bessant, 2018) suggests five core themes are involved:

- Build competence – grow through what you know.
- Build via networking – organizations don't have to know it all but they do need the ability to find, form and build high performance networks of knowledge.
- Build a capability for innovation, embedding key behaviour patterns into routines which can be repeated and form the underlying structure and process.
- Focus innovation in key strategic directions, fully exploring and exploiting innovation space.
- Build dynamic capability – the ability to review, reconfigure and change their innovation models and approaches to suit a constantly changing external environment.

We will look in more detail at each of these in the following section.

3.1. **Competence – growing through what you know**

Our example companies may have begun with a start-up idea or opportunity – but they didn't rest on their laurels. They built their businesses on *innovation* – changing what they offered the world and how they created and delivered those offerings. Their ability to do so required continuous investment in building a knowledge base – through R&D, learning by doing, learning by exporting, etc. – which they were then able to deploy in a continuing stream of innovations.

For example, Marshalls had to learn to repair and maintain their vehicles by themselves, building a deep understanding of how to modify things. Whilst the motor car brought many benefits, David Marshall saw an early opportunity in the idea of a 'sports car' – one where driver and passengers were not enclosed in a cabin. He was already selling and repairing the Austin saloon car in the UK so approached the company with his idea – to be met with the response that they only made 'standard' cars. Rather than give on the idea up he used the skills and equipment in his workshops (where they already knew the Austin car inside out) and converted them, making the first Austin sports car. Later on these skills were transferred to the newly emerging world of aeroplane maintenance and repair as the next generation of the family moved into this business. This core competence in modifying, adapting and reconfiguring was strengthened by extensive investment in design capabilities and tools so that the company grew a strong reputation as an adaptive engineer (Bessant, 2012).

Sally Windmuller's original business drew on a simple knowledge base, one grounded in making and repairing horse drawn buggy equipment. But as he began looking to make accessories like lights and horns for the emerging automobile industry there came the need to specialise and build a deep knowledge base. He began to invest in what we would now call R&D; for example early on he saw a key development was going to be the new acetylene lamp – a big move forward compared to the old oil or even candle powered lights. Recognising the importance of technology led to the award of their first patent, in 1901; this also gave them valuable experience in the process of assembling and protecting intellectual property. By 1908 they had mastered the technology originally developed by Osram for making car lights and began to make headlights, sidelights, rear lights, and license plate lights (Bessant, 2017).

Christian Hansen's painstaking laboratory work gave him an appreciation of the power of a strong science base from which to grow a business. Developing a deep understanding of enzymes and their properties was part of the story but so too was the underlying process technology needed – understanding how to grow, how to stabilise, how to transport them. These skills embedded in his product technology enabled the company to become a major supplier in the world of cheese making and to build a strong applications base out form that. Much later their continued investment in understanding the science of microbiology enabled them to enter increasingly sophisticated markets in food and healthcare sectors.

In similar fashion Wilo's early days as a specialist foundry gave them a deep understanding of how to work complex shapes in metal and maintain precision and quality. De la Rue can trace its technological competence back through a long history of learning about and applying key specialist knowledge in the printing and stationery world. Nor is this a lucky accident; such businesses continue to spend a significant proportion of their turnover on design, research and development activities. For example Wilo spends around 5% whilst De La Rue recently announced a commitment to double their R&D commitment by 2020. Dyson's strengths have increasingly been linked to the high profile of design and development within the company; in 2015 its products generated $2.4 billion in sales but nearly half of this (46%) was ploughed back into R&D.

This sustained commitment to building and managing a knowledge base can be seen in key investment decisions made by our companies. For example back in 1980 Hella was an early entrant into the emerging world of intelligent electronics – a move which was high risk at the time, costing a great deal with little apparent short-term pay-off. But the seeds sown then have blossomed forty years later with the electronics side of their business now the main driver and likely to grow further with the explosion of applications of intelligent electronics in driverless cars.

Similarly Christian Hansen's sustained investment in understanding and learning to work with the underlying science of microbiology has made it an essential player in many markets, able to configure solutions based on this deep long-standing knowledge resource. Wilo's pump technology is underpinned by decades of investment in learning by doing coupled with R&D-based scientific understanding. And Dyson's deep understanding of the key areas of high powered direct drive motors, airflow and fluid dynamics has meant that they could expand on various tools using these principles – hair dryers, hand driers, washer/driers, fans as well as vacuum cleaners. And their increasing interest in cordless battery technologies have led them to open up new possibilities in the whole field of storage technology and its applications.

The effect of this consistent attention to building a knowledge base is that it provides these companies with a rich well from which to draw when opening up new markets, customising and adapting new configurations. Importantly they also recognise the potential for learning and competence-building via working in new markets and geographical regions; for many of them R&D is a globally distributed operation. Such learning provides valuable insights not only of relevance to these local markets but also opportunities for knowledge flows in the opposite direction. 'Reverse innovation' of this kind is increasingly recognised as an important source of ideas and a good example comes in the exploration and adoption of 'frugal innovation' models which have emerged in resource-constrained markets like India and China. Companies like Hella and Wilo are increasingly looking to these regions to provide insights into robust and simpler product designs (Bessant, 2017). Others such as Christian Hansen and De La Rue work extensively with competent partners in international collaborations; for an aerospace company like Marshalls this kind of international joint venturing is the norm.

3.2. **Not all the smart guys work for you**

Building a core knowledge base is important – but it can also represent a significant cost to small organizations. This has often been used in the past as an explanation of their lack of innovativeness, but the reality is that it is not an issue of knowledge ownership so much as knowledge acquisition and deployment. Innovation is increasingly recognised as a multi-player game, one in which the ability to connect to complementary resources is the key (Birkinshaw, Bessant and Delbridge, 2007).

This concept of 'open innovation' was memorably expressed by a comment made by Bill Joy of Sun Microsystems. He observed that in a knowledge-rich environment of the kind in which we now operate even the largest company has to recognise that '*not all the smart guys work for us*'. This has huge implications for the way the innovation game gets played – essentially it flattens the landscape and creates conditions which are more favourable for smaller enterprises. It is not a problem of being small but rather of ensuring that they are connected – and building networks for innovation has become a key success factor in the 21st century (Bessant and Venables, 2008).

Open innovation as a formal term was coined by Henry Chesbrough in an influential article and book back in 2003 (Chesbrough, 2003). Since then there has been an explosion of interest in the concept and extensive experimentation with new models for managing innovation more effectively based in increasing the flow of knowledge, both into and out from organizations. The somewhat static picture of the last century where knowledge production and ownership were seen as important has given way to more of a trading environment where managing knowledge *flows* is the key skill.

Although fashionable now open innovation is not a new message. Hidden champions have long had an appreciation of this principle and have developed successful growth models which build on a networked approach to innovation, assembling and managing knowledge partnerships. This has meant they have been able to leverage their own knowledge base and also to take advantage of complementary skills and resources held by others through various forms of collaboration.

One important element in the emerging open innovation landscape is the need to maintain a core knowledge base. The widespread availability of knowledge 'out there' does not mean that organizations can abdicate their own responsibility to develop a knowledge base. Instead it is the presence of that knowledge base which gives them the ability to assess and evaluate external knowledge and to deploy it to advantage – a concept termed 'absorptive capacity' (Cohen and Levinthal, 1990). This is the ability of an organization to identify, acquire, absorb and deploy new knowledge in order to grow. If there is no understanding of the core content then such organizations won't be able to assess what might be relevant to them and they won't have the ability to adapt and configure new knowledge to work for their advantage (Zahra and George, 2002).

Track each of our example companies back and we can see that there is a pattern – consistent investment in acquiring knowledge and deploying it in a series of successful new products and processes. For example during the 1990s Hella recognised that the world of the automobile was changing and that trying to compete along such a complex technological frontier required developing networks and partnerships. They began to put these in place via a mixture of acquisitions, mergers and joint ventures, steered by a deliberate 'network strategy' which helped fuel knowledge-led growth across the business (Bessant, 2017).

This move anticipated what was to become an increasingly important shift in the role of automotive suppliers, moving from being simply shops where components could be purchased towards players with strategic knowledge and capability to put together whole systems. Today's elaboration of that network strategy involves strategic partnerships and joint ventures with dozens of companies supporting along the knowledge frontier and feeding into lighting, electronics, aftermarket and special applications fields. A good example is the current ability to work in the strategically important field of camera-based driver-assistance systems. Hella's ability to work in this space comes from their acquisition in 2006 of a small Berlin-based specialist for visual sensor systems.

Open innovation as a principle involves networking widely outside and inside the organization to leverage a broad knowledge base. Companies like Wilo work with customers in close fashion, with many of their projects essentially a result of co-creation amongst partners, and Marshalls have long recognised the value of such user input in their design work. Nor is the networking confined to external sources; Wilo also operates an internal collaborative platform on which all of its 7000 employees can contribute ideas and build and share these to help mobilise their innovation capacity.

3.3. **Innovation capability - competence is not enough**

Investing in creating and accumulating knowledge – whether in-house or as part of a rich complementary knowledge network – is a necessary but not a sufficient condition for innovation success. We also need to learn how to create *value* from it. Innovation isn't a magical event; it doesn't take place in the way often depicted in cartoons, where a light-bulb magically flashes on above someone's head. It's about turning those ideas – knowledge – into value and that involves a long and uncertain journey. We might reach that destination once by sheer good fortune, but being able to make the journey repeatedly needs much more in the way of a map, provisions, experience.

Research clearly shows that successful innovation requires careful management, organizing key behaviours into embedded routines which define the way we approach the challenges of searching for opportunities, selecting the right ones and implementing innovation against a background of uncertainty (Tidd and Bessant, 2014). And we can see this pattern in the ways in which innovation became increasingly professionalised and embedded within the 'DNA' of our example companies. In Hella, for example, the early days on entrepreneurial luck and being fast and flexible moved on to a pattern with increasing investment in R&D and the setting up of a process innovation team responsible for ensuring the ability to make in high volumes and to consistent quality. Later in its life the company faced significant problems due to too much unfocused product innovation and introduced major reforms around portfolio and product management. And in the 1990s there was a realisation of the need to proactively build networks and alliances in order to be able to innovate along a broad technological frontier. In each case there was evidence of 'innovation model innovation' adapting and reconfiguring the innovation routines to be better focused on meeting the current environmental challenges.

Christian Hansen has a similar history – moving from an early example of a university-based spin out company to increasingly professionalising and organizing the innovation processes to enable their deep knowledge base to emerge into a wide range of products and services. Marshall's moved from another entrepreneurial start-up through a focused reflection on the core competences they needed around working closely with end users and, like Hella, this led to significant restructuring and investment in more professional innovation organization. In their case a significant move forward was to build capability in the 1960s to undertake design work, giving them the opportunity not just to respond to customers but to lead the market and to sharpen their abilities in fast reconfiguration of aircraft and vehicles. Dyson is a comparative new kid on the block but already innovation has been refocused with a strong concentration of R&D and product innovation activity backed by significant re-investment of company profits.

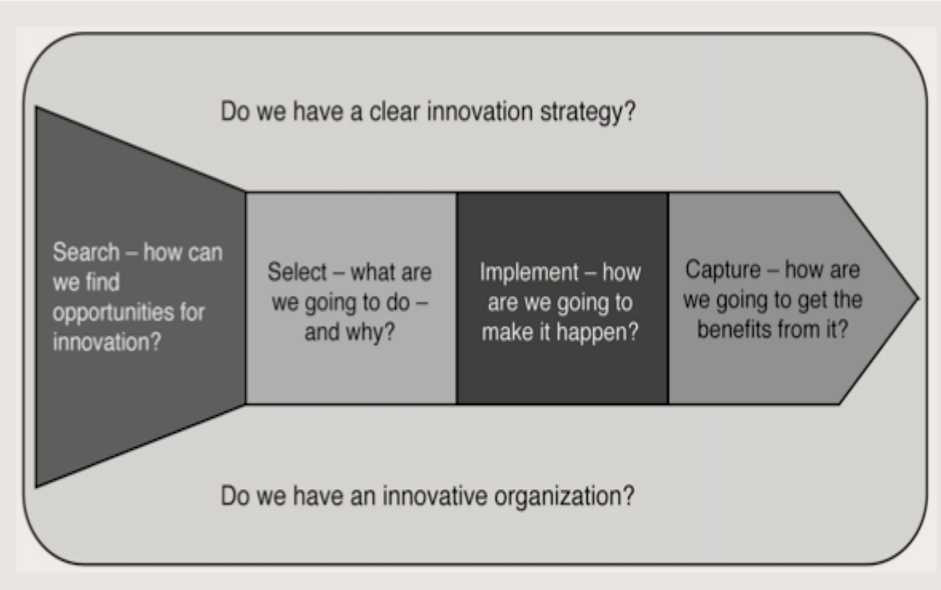
The good news is that we have a wealth of experience on which to draw to help us with this challenge of organizing and managing innovation. Researchers have been distilling the hard-won lessons of failure and the interesting patterns associated with success for close to a hundred years now, and the results converge into a fairly simple model. (See figure 1).

Let's look at this map in a little more detail. The main stages are simple – find an idea to trigger the process, implement it and capture the value emerging from it. In terms of what we might need to do as innovation managers and entrepreneurs this means we need to focus our attention on some key 'stations':

- Searching for trigger ideas.
- Selecting from the possibilities the one we are going to follow through.

- Developing the idea from initial 'gleam in the eye' to a fully-developed reality.
- Managing its diffusion and take up in our chosen market.
- Capturing value from the process.

Figure 1. **SIMPLIFIED MODEL OF THE INNOVATION PROCESS**



Source: Tidd and Bessant, 2013.

Each of these stages poses different challenges. For example, at the search stage we need to recognize that innovation triggers come in all shapes and sizes and from all sorts of directions. They could take the form of new technological opportunities, or changing requirements on the part of markets; they could be the result of legislative pressure or competitor action. They could be a bright idea occurring to someone as they sit, Archimedes like, in their bathtub. Or they could come as a result of buying in a good idea from someone outside the organization. And they could arise out of dissatisfaction with social conditions or a desire to make the world a better place in some way.

The message here is clear – if we are going to pick up these trigger signals then we need to develop some pretty extensive antennae for searching and scanning around us – and that includes some capability for looking into the future.

But we can't do everything – and so the next stage is very much about *strategic* choices. Does the idea fit a business strategy, does it build on something we know about (or where we can get access to that knowledge easily) and do we have the skills and resources to take it forward?

The trouble with innovation is that it is by its nature a risky business. We don't know at the outset whether what we've decided to do is going to work out or even that it will run at all. Yet we have to commit some resources to begin the process – so how do we build a portfolio of projects which balance the risks and the potential rewards?

Having picked up relevant trigger signals, made a strategic decision to pursue some of them, found and mobilised the resources we need, the next key phase is actually turning those potential ideas into some kind of reality! In some ways this implementation phase is a bit like weaving a kind of 'knowledge tapestry' – gradually pulling together different threads of knowledge – about technologies, markets, competitor behaviour – and weaving them into a picture which gradually emerges as a successful innovation.

It would be foolish to throw good money after bad so most organizations make use of some kind of risk management as they implement innovation projects. By installing a series of 'gates' as the project moves from a gleam in the eye to an expensive commitment of time and money it becomes possible to review – and if necessary redirect or even stop something which is going off the rails.

Eventually the project is launched into some kind of market-place. This might be an external market-place in which decisions to adopt are taken by people who might use the product or service. Or it might be an internal 'market' in which our employees make the choice about whether or not to 'buy in' to the new process being presented to them. At this stage the challenge shifts to capturing value – getting the benefits in terms of financial reward or the satisfaction of social change which is successfully implemented. Even if the innovation itself fails there is still the chance to capture some value from the experience in terms of learning about how to do better next time.

Of course this model plays out in many different ways in different organizations but at heart it's the same underlying process. It describes the ways in which an organization renews what if offers the world and the ways it creates and delivers that offering.

Influencing the process

It's all very well putting a basic process for turning ideas into reality in place. But it doesn't take place in a vacuum – it is also subject to a range of internal and external influences which shape what is possible and what actually emerges. In particular innovation needs:

- Clear strategic leadership and direction, plus the commitment of resources to make this happen. Innovation is about taking risks, about going into new and sometimes completely unexplored spaces. We don't want to gamble – simply changing things for their own sake or because the fancy takes us. No organization has resources to waste in that scattergun fashion – innovation needs a strategy. But equally we need to have a degree of courage and leadership, steering the organization away from what everyone else is doing or what we've always done and into new spaces.

- An innovative organisation in which the structure and climate enables people to deploy their creativity and share their knowledge to bring about change. It's easy to find prescriptions for innovative organizations which highlight the need to eliminate stifling bureaucracy, unhelpful structures, brick walls blocking communication and other factors stopping good ideas getting through. But we must be careful not to fall into the chaos trap – not all innovation works in organic, loose, informal environments or 'skunk works'– and these types of organization can sometimes act against the interests of successful innovation. We need to determine appropriate organization – that is, the most suitable organization given the operating contingencies. Too little order and structure may be as bad as too much.

As we've seen successful organizations are increasingly those which can build a network around them through which they can tap into the key resources which they need. Building and managing such networks is a key factor in creating an extended form of organization.

- Pro-active links across boundaries inside the organisation and to the many external agencies who can play a part in the innovation process – suppliers, customers, sources of finance, skilled resources and of knowledge, etc. As we discussed earlier, 21st century innovation is most certainly not a solo act but a multi-player game across boundaries inside the organisation and with the many external agencies who can play a part in the innovation process. These days it's about a global game and one where connections and the ability to find, form and deploy creative relationships is of the essence. It's not necessary to know or have everything to hand – as long as you know where and how to get it!

So if, like our hidden champion examples, we are serious about managing innovation then we should try and ask ourselves questions aimed at improving the way the process operates. For example:

- Do we search as well as we could?
- How well do we manage the selection and resource acquisition process?
- How well do we implement?
- Do we capture value? Improve our technical and market knowledge for next time? Generate and protect the gains so they are sustainable?

- Do we learn from experience? How do we capture this learning and feed it back into the next time?

Of course the reality of the journey is never as simple as this map. It's a messy process of stops and starts, dead ends and blocked roads, diversions and hold-ups. And on many occasions we may need to abandon the journey, dust ourselves off and start again in a different direction. But a wide range of studies suggest that there is an underlying journey (= process) and there are consistent lessons about the kinds of thing we can do to improve the ways we make it (Van de Ven, 1999).

Innovation doesn't happen by accident within our example companies. They have developed 'routines' – patterns of behaviour which become embedded in core processes, structures and policies – they become 'the way we do things around here' (Nelson and Winter, 1982). It is no coincidence that the websites of all of these companies make reference at the top level to the importance of their 'innovation culture' – not as a throwaway line but as something which shapes and guides behaviour within those organizations.

3.4. **Innovation strategy**

Having the capability to innovate and the deep knowledge base on which to draw is important, but another key element is making sure innovation is strategically directed. Successful hidden champions recognise that there is a wide field of opportunity and place their strategic bets accordingly. They build a portfolio covering and exploring all the innovation space.

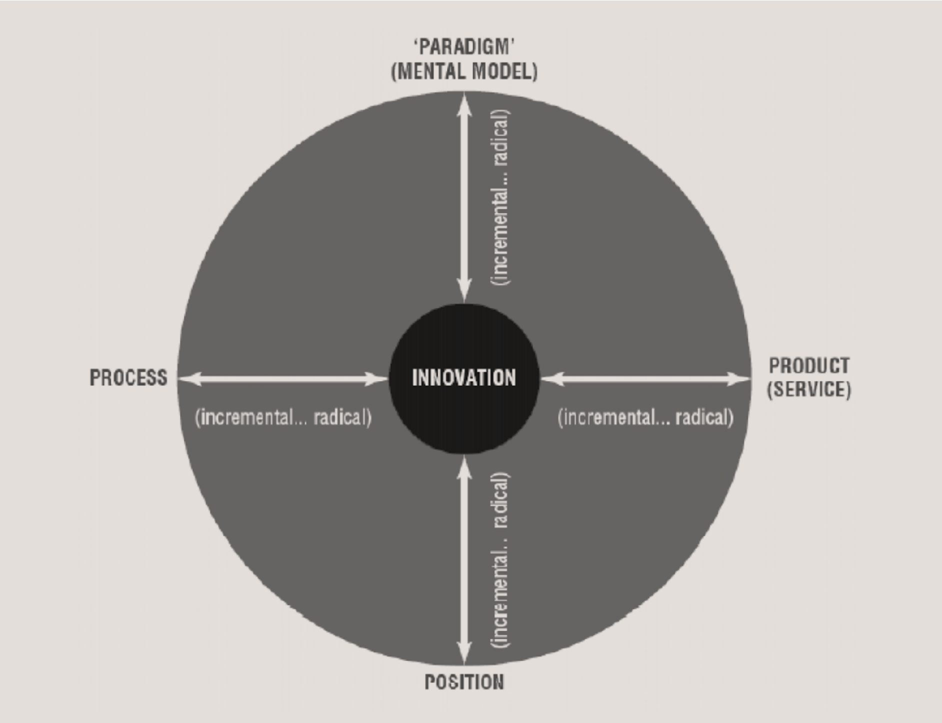
For any organization there is the need to balance exploitation and exploration – doing what they already do better and occasionally doing something completely different. These translate into incremental and radical innovation activities; striking a balance and recognising the different ways in which they can be realised is a key innovation management skill. Innovation inevitably involves risk and a balanced portfolio would seek to have a range of projects distributed along this spectrum with the majority around 'do better' improvement agenda but with others pushing the frontiers of radical innovation.

But there is a second challenge in innovation strategy – making sure that the full space available for innovation is explored. It is helpful to think of this space as being mapped by an 'innovation compass' – essentially innovation can take place in a number of directions. (see Figure 2).

This model suggests that we can make changes – innovate – in many directions but principally we can think about:

- The product or service – what we offer the world.
- The process – the way we create and deliver that offering.

Figure 2. **EXPLORING INNOVATION SPACE – THE INNOVATION COMPASS**



Source: Francis and Bessant, 2005.

- The position – who we offer it to and the story we tell about it.
- The 'business model' – the way we think about what our organization does and who we do it for.

Most organizations begin life as start-ups with a core product or service offering. But over time innovation needs to move along other directions as well. For example Christian Hansen's pioneering science in the laboratory would have remained there without the underlying process innovation able to enable reproduce ability, scale, transportation, etc. Wilo's early work as a specialist foundry was customer-led application of process technology and skill; only later did their core product work around pumps come into the equation.

Marshalls demonstrates what happens when companies develop capabilities along both product and process innovation directions – they can configure and create new products through the interplay of these complementary capabilities. In similar fashion Dyson learned a great deal around process innovation (especially in design for manufacture and modular/platform thinking) which has helped them expand their product range so widely.

But whilst product/process innovation remains a key axis along which considerable activity can take place a key characteristic of hidden champions is their exploration of innovation space enabled by position innovation. By entering new markets, especially internationalising at an early stage, they confront key challenges which require very different configurations to solve. Drawing on their product and process innovation skills but also learning with the new marketplaces stretches and extends their capacity as innovators, expanding their markets in the process.

Closely linked to this is the evidence that hidden champions (like our examples) have close links with customers, often partnering with them in developing (co-creating) novel solutions. Relationships matter because they enable a flow of key knowledge between the players – for example, Christian Hansen's ability to configure bacterial strains for different environments owes much to its close links with cheese makers around the world, established and worked on over decades. Marshall's business has been built on close partnerships with customers, learning from and with them in what is essentially joint problem-solving activity.

Of growing significance in todays' environment is the ability to also innovate the underlying core business model which drives the business. This is hard to do but only by being able to step back and redefine how the company transforms its knowledge base to create value will it continue to succeed. We can see this willingness to reframe in our examples; each of them has had episodes in their history where they have redefined themselves, letting go of some of their original core and identifying new ways in which the business will create value in the future. For example, Marshall's moved in the post-war years from a contractor model, relying on its close links with key customers to one in which they increasingly became a design and knowledge partner. Rethinking that business model anticipated in many ways the move towards 'servitization; which characterises and increasing number of project-based manufacturing organizations today.

For De La Rue the shift was from working with advanced and specialised printing technologies to reframing the business as one in which security was the defining feature. It had the effect of moving them out of certain markets but also towards close relationships of trust with key agencies for whom high security documentation is of central importance. As their business moves increasingly into the digital world so this business model is having to adapt again.

Christian Hansen's business moved, like Marshalls, from supplying products to increasingly delivering a science-based service, customising and configuring to suit highly specific needs. Dyson has made a significant move upstream form supplier of domestic appliances to being seen as a design-led technology leader, moving from domestic applications to possible new roles in the world of transportation and power. And Hella is now in the position of adapting and extending its business model as it moves from a role as an automotive component supplier to a high technology provider of intelligent electronics with potentially wider application possibilities in the emerging markets created by the 'Internet of Things'.

Their skill lies less in the particular decisions about strategic investments for innovation than in their ability to explore and colonise the innovation space in a broadly-based fashion. In doing so they create room for them to manoeuvre in an increasingly turbulent world.

3.5. **Continuity through change – dynamic capability**

Thanks to the pioneering work of scientists like Francis Crick, James Watson, and Rosalind Franklin we now have a deep understanding of the way in which the human organism passes on its past. Strands of DNA make up genes and these provide the carriers for what shapes an individual in terms of their make-up and behaviour – blue eyes, long legs, stronger heart, etc. Genes encode the programs for the future and being able to carry forward key characteristics enables us to survive in hostile and complex environments.

Understanding the building blocks through which genetics operates moved us to a new world where we can now engage in genetic engineering – removing troublesome genes or switching them off, splicing in new ones with additional capabilities, improving the health of existing ones.

Organizations also have a kind of DNA – and we often use this metaphor. But DNA in an organization involves a set of 'programs' embedded in its structure and processes – the way we do things around here. Much organizational theory talks about 'routines' – and these are effectively the expressions of genetic coding around how we tackle the day-to-day tasks of the organization. So in the world of innovation there are routines for how we search, how we choose projects, how we manage them, and so on.

The big difference between an organizational model and the wider world of evolutionary genetics is that we don't have to wait for random mutations to modify the genes. Within organizations we can carry out 'genetic engineering' to revise and reshape the genes in more active ways. That's the role of leadership, trying to create organizations which are well adapted for their current and future environments.

So over time if an organization is to survive and continue to innovate it needs to find some way of passing on its genes – continuity. And it also needs to have the capacity to review, revise and modify its genetic make-up for innovation – changing some and splicing in others, adding to the overall capability.

'Dynamic capability' of this kind is the key to innovation longevity (Teece, Pisano and Shuen, 1997) (Zollo and Winter, 2002). Being able to step back and review routines, asking key questions like:

- More of – of the routines we have in place which ones do we need to strengthen, build on?
- Less of – of our routines which ones should we change, or perhaps eliminate, since they are no longer appropriate?
- Different – which new tricks do we need to learn, which new behaviour patterns do we need to rehearse and embed?

Once again we can see this ability – to review and to reconfigure innovation routines – at the heart of our hidden champions and their approach. There's a willingness to challenge and revise approaches which have worked in the past, an awareness of the need to reset goals and adapt structures. But at the same time there is continuity – the persistence of core values which hold the organization together and which pass on to future generations the essence of the company approach to innovation. Balancing these two elements is at the heart of effective innovation leadership.

Take the example of Hella. A family-owned business for much of its life it has seen innovation move from a fairly ad hoc informal process to one which is at the heart of their success. Their history has been one of reviewing and adapting innovation capability, adding new elements, adapting others, letting others go. Their early commitment to R&D led to increasing formalisation, to recruitment of specialist staff and establishment of departments within which they could operate. That commitment remains today with around 10% of turnover being ploughed back into knowledge creation – but the structures to enable the work of those scientists and engineers have changed. At key points in their history we can see this kind of strategic reflection at work.

For example in the 1980s there was an explosion of product development, new ideas flaring up everywhere, some customer-led, some opportunistic deployment of new technologies. What was clear was an increasing lack of focus or control – one review suggested that of around 4000 projects a small number – less than a hundred) made up the main contribution to sales, accounting for around 80%. A further 300 delivered around 15% of sales and the remainder – 3000 plus – delivered less than 5% of sales whilst consuming over 30% of the R&D investment. Rethinking product development and putting in place disciplines and structures for portfolio management was a key intervention, a major reconfiguration of the innovation model.

Or the move towards networking – the foundations of the open innovation approach discussed earlier. Once again there was a key reflection point and a recognition that the model which had brought the company through much of its early life needed to give way to a newer model based far more on building knowledge networks with others.

More recent activity has focussed on how to deal with disruptive innovation. In an industry which has suddenly become much more fluid and uncertain there is great risk but also opportunity for entrepreneurs. For an established player like Hella this implies the need to build a very different kind of innovation capability, one geared much less to the 'do what we already do but better' agenda and instead focusing on doing something completely different. At the limit this may require letting go of core parts of the company to replace them with new businesses. Building such a capacity for corporate entrepreneurship has involved some fundamental rethinking of the innovation model, letting go some old approaches and adding new capabilities with new operating tools and processes more linked to entrepreneurial start-up culture.

We can see the same reflection and reconfiguring in our other cases – for example Dyson was heavily criticised during its earlier years for shifting its manufacturing operations to the Far East. But what was actually happening was a fundamental shift towards becoming a design-driven enterprise and the move was also accompanied by a significant expansion of UK based work around R&D and design. As we have seen this trend has accelerated so that now a substantial part of the company is involved in this kind of work; essentially the underlying innovation model has shifted and adapted.

4. CONCLUSIONS

Hidden champions are an increasingly recognised force in the economy and they give the lie to the idea that success and survival are dependent on scale. Their strength comes from many elements, in particular a strong external and international orientation matched to close customer links and a commitment to being tightly focused on a particular field. But at the heart of their success is a model which sees sustained innovation as key to survival and growth.

This long trail of innovation is one we see in all of the examples and many others – but it is not a lucky accident. It draws on key competencies and capabilities both embedded in the organization and in its wider ecosystem. And above all it depends on having the dynamic capability to review and reset these, and in doing so to maintain a position which is both agile and resilient in a turbulent environment.

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German Hidden Champions: competitive strategies, knowledge management and innovation in globally leading niche players

Hidden Champions (HCs) are firms unknown to the wider public, but global leaders in the niche markets they serve. This paper looks at distinctive features of these firms, focusing on competitive strategies, knowledge management and innovation. Employing a unique data base on German firms, we identify a representative sample of German HCs and examine differences to other firms using a matching technique. We find that HCs' competitive strategy rests on technology leadership and customisation. HCs are more open in their knowledge management, but without compromising control over the new product development process. HCs do not invest more into innovation, but achieve higher innovation success. The higher efficiency can be linked to their superior technological capabilities and to higher investment in human capital and HR management practices that mobilise the creative potential of their employees.

Los Campeones Ocultos (CO) son empresas desconocidas para el público en general, pese a ser líderes globales en sus nichos de mercado. Este artículo estudia las distintas características de estas empresas, centrándose en las estrategias competitivas y la gestión del conocimiento y la innovación. Haciendo uso de una base de datos particular sobre empresas alemanas, identificamos una muestra representativa de CO y las comparamos con otras empresas mediante una técnica de coincidencia (*matching technique*). Encontramos que la estrategia competitiva de los CO alemanes se basa en el liderazgo tecnológico y la personalización. Los CO son más abiertos a la gestión del conocimiento, sin llegar a comprometer el control del proceso de desarrollo de nuevos productos, y no invierten mucho en innovación, aunque logran mayor éxito en este ámbito. Dicha eficacia se puede vincular a sus mayores capacidades tecnológicas, a la mayor inversión en capital humano y a prácticas de gestión de RRHH, que movilizan el potencial de creatividad entre sus empleados.

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Christian Rammer
Centre for European Economic Research (ZEW)
Alfred Spielkamp
Westphalian University of Applied Sciences

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Keywords: German Hidden Champions, competitive strategy, knowledge management, innovation, dynamic firm capabilities.

Palabras clave: Campeones Ocultos alemanes, estrategia competitiva, gestión del conocimiento, innovación, capacidades dinámicas de la empresa.

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1. INTRODUCTION

For many small and medium-sized enterprises (SMEs) in highly developed open economies, innovation and globalisation are two major challenges in developing a successful competitive strategy. In many markets, innovation is a key driver of competition. SMEs need to develop capabilities and management practices not only to keep pace with technological change, but also to gain competitive advantages from innovation, allowing them to compete over large firms. However, SMEs face a number of obstacles to innovation, including high fixed costs of conducting R&D, a high risk exposure if an innovation project fails, limited access to external financing, and lack of market reputation (Acs and Audretsch, 1988; Rammer *et al.*, 2009). At the same time, globalisation challenges many SMEs though increased competition while they face difficulties in exploiting the opportunities of global markets (Paul et al., 2017; Fliess and Busquets, 2006).

But there are some groups of SMEs that manage to leverage the advantages of globalisation through innovation-based globally oriented business models. One group are so-called 'born globals'. These are start-ups and young firms that from the beginning pursue a vision to develop and commercialise products for users across the globe (Fryges, 2006). They access global markets by using innovative sales channels such as the Internet and foreign distribution partners. Another group are established SMEs that aim at being a world-market leader in niche markets. Hermann Simon (1990, 1996) was the first to denote these firms as 'Hidden Champions' (HCs)[1]. Generally HCs operate in product niches and can become market leader by following a strategy of specialisation. They seek opportunities in markets that are often not economically attractive for large companies. Due to the fact that the national markets for these applications are often too small, HCs have to be present globally. In recent years, attention towards HCs has increased as they provide an attractive model for small firms to gain from globalisation (Audretsch et *al.*, 2018; Garaus *et al.*, 2015; Huh, 2015; Lee *et al.*, 2014; Petraite and Dlugoborskyte, 2017; Purg *et al.*, 2016; Voudoris *et al.*, 2000; Witt and Carr, 2014).

This paper aims to contribute to the growing literature on Hidden Champions (HCs) in two ways. First, we want to shed more light on the specific strategies pursued by HCs to maintain global market leadership. In particular we look at the way HCs position themselves in markets, the knowledge management practices they use, and the innovation paths they follow. Secondly, we broaden the empirical methodology of HC analyses by employing a new approach which uses a unique data base on German firms, enabling a representative analysis of HCs. Thereby, we overcome the shortcomings of most of the existing studies, which are usually based on case studies or a deliberate selection of identified HCs.

2. HIDDEN CHAMPIONS AND INNOVATION MANAGEMENT

The phenomenon of Hidden Champions has been explored by Simon since the beginning of the 1990s (Simon 1990, 1996, 2012). The term 'Hidden Champions' is used to describe SMEs and mid-sized companies with high world market shares. They are often among the technology and innovation leaders in their sector and they significantly influence the development of their market. The firms are called 'Hidden' because they operate in niche markets or as suppliers in business-to-business settings, and are mostly not publicly known. They are 'Champions' because

[1] HCs are not restricted to the group of SMEs, though the majority of them are below the SME threshold of 250 employees (see section 3). Sometimes, particularly in the German context, the debate on HCs goes beyond SMEs, referring to the concepts of '*Mittelstand*', family enterprises and owner-managed enterprises, and including large firms of up to several billions of annual sales. In this paper, we also include HCs beyond the SME size threshold. These larger firms often share communalities with SMEs in ownership, governance structure and enterprise culture (Welter et *al.*, 2014 for a discussion of *Mittelstand* and SMEs in Germany).

they are exceptionally successful firms due to their global leadership, and strong international competitiveness in their respective fields.

According to the assumptions of Simon's concept (Simon, 2012), firms that fall into the Hidden Champion category share the following characteristics:

- A HC takes a Top-3 position on the global market, or the first position in Europe or on its continent – its market position is primarily dependent on its market share (or on its relative share).
- Its revenue does not exceed five billion euros.
- It has got little popularity and leads a more or less hidden existence away from the public eye.

It needs to be emphasised that innovation, as pointed out by Simon, is seen as a crucial factor and constitutes one of the pillars for HCs' competitive advantages.

The concept of the firm's innovative potential is defined in a variety of ways by different authors. Some scholars describe the innovative potential very narrowly, others define it as part of an extensive model of managing innovation (e.g. Nelson and Winter, 1982; Kline and Rosenberg, 1986; Cohen and Levinthal, 1990). In the tradition of the resource-based theory of the firm (Penrose, 1959; Barney, 2001; Prahalad and Hamel, 1990), the firm's scope of innovation is understood as the resources that the firm should have at its disposal in order to create and commercialise innovations effectively.

Following these considerations, Teece and Pisano (1994) developed a more comprehensive and dynamic approach by introducing the concept of the 'Dynamic Capabilities of Firms' (Teece and Pisano, 1994; Teece *et al.*, 1997; Teece, 2007). They pointed out that winners in the global marketplace have been firms demonstrating timely responsiveness and rapid and flexible product innovation, along with the management capability to effectively coordinate and redeploy internal and external competences. The main sources of firms' competitive advantages include the ability to adjust to the shifting character of the environment, and (strategic) management which is excellent in adapting, integrating, and re-configuring internal and external organisational skills, resources, and functional competences towards changing environments (Teece and Pisano, 1994).

As a model for strategic management with a focus on efficiency, three dimensions are of uppermost interest in the framework of dynamic firm capabilities: processes, position, and path (Teece *et al.*, 1997).

- 'Managerial and organisational processes' stress the importance of the way things are done in the firm. That implies both the intra-organisational interactions amongst different functions and departments, and the inter-organisational relations to partners outside the firm, especially customers and suppliers. There has to be a balance of routines and well known practices in combination with the agility in dealing with challenges and new trends in the environment of the firm. In particular, three capabilities are vital. First, management coordinates and integrates internal and external actors and activities and forms, e.g. strategic alliances, technological collaborations and relations to different stakeholders. All these linkages provide specific knowledge that is supposed to be integrated into business processes. Secondly, learning is crucial. A learning organisation distinguishes itself by being able of communicating and sharing knowledge and connecting new ideas to its current knowledge basis. Learning needs both organisational and individual skills what makes human resource management fundamental to firm success. Thirdly, there is the capacity of reconfiguration. In volatile environments there is permanent need to rearrange firm's asset structure, and to master essential internal and external transformations. This requires ongoing monitoring of market trends and technological changes and implies readiness to absorb new ideas and impulses.

- 'Position' expresses a variety of assets an enterprise can exploit, e.g. financial, technological, intellectual, organisational, and market assets. Excellence in this area builds the basis for strategic and operational management and defines the competitive advantages of the firm. The scope of action depends of the firm's cash position and the available means to finance trendsetting projects. Nevertheless, the pillars for the development of innovative processes, products and services are the endowment of technology and intellectual property. The formal setting of an organisation, e.g. the hierarchy and the degree of vertical integration, in combination with informal relations are key pillars of corporate culture. Critical organisational assets include a firm's networks and external sources of knowledge. They can have a significant impact on the outcomes of innovation processes. Furthermore, in-depth knowledge about market mechanism and awareness of the specific needs and preferences of customers strongly influence a firm's market position and profitability prospects. Achieving an excellent reputation with clients is an important management objective just as well as having a large number of regular customers and reliable relations to suppliers. Recapitulating the above mentioned remarks on assets, position refers to the difficult-to-trade-factors and uniqueness of the firm.
- The notion of 'path' recognises that the history of a firm matters. What happened in the past, especially the accumulation of technological and intellectual knowledge, is crucial for the assimilation of new ideas and impulses. The learning capacity of an enterprise is path dependent. Firms can choose among an almost infinite range of technologies which they can apply to compete in existing markets or to get access to new business fields. It is a dynamic process in the sense that the know-how earned in the past

and present will be more efficiently exploited in the future. In-house research and development (R&D) is an essential precondition for the firm's 'absorptive capacity' – the ability to recognise, assimilate and apply new knowledge (Cohen and Levinthal, 1990). Cooperative arrangements and openness to external sources of knowledge are further relevant means of accumulating capacities. In this regard, path is also about human capital. Knowledge is not only embedded in equipment and products but it is embodied in people. Some firms have the individual capacity to engage in basic and applied research or they are linked to these areas by empowering competent and committed employees.

Linking the concept of the dynamic capabilities of firms with the phenomenon of Hidden Champions, it seems to be obvious that the success of a firm does not happen accidentally but is the result of leadership and strategic orientation, an appropriate organisational structure, especially with respect to resources and people, and how processes are designed.

Recent studies on HCs have shown that processes, position, and path are important factors when looking for success drivers in HCs and lessons other firms can learn (Simon, 2012, 2014a, 2014b as well as Audretsch *et al.*, 2018; Kaudela-Baum *et al.*, 2014; Kirner and Zenker, 2011; Rasche, 2003; Posch and Wiedenegger, 2013; Venohr and Meyer, 2007). A short summary of the empirical findings shows the following:

- HCs show managerial and organisational process qualities by striving for operational effectiveness, continuously assimilating, attaining, and extending best practices. In addition, they create distinctive organisational cultures that are built on owner-entrepreneurs and long-term relationships within the firm and with key external partners. HCs have very strong corporate cultures associated with excellent employee identification and motivation. The customer base and upstream relations to suppliers are essential. HCs rely on their own strengths and outsource less than other firms. For the customers they provide a wide choice of solutions and services, an advantage that can only be achieved by independently operating along the value chain. Profound production capacity and service orientation are amongst other critical factors for their competitive superiority. HCs business idea can be quoted as 'deep rather than wide' and refers to the deep knowledge along the value chain, and the firms' conviction to stick to their own proficiency.

- HCs' position and path can be illustrated on various observations. The understanding of market as a strategic orientation is usually leading to narrowly-defined markets, both from a customer and technology perspective. HCs concentrate their limited resources on niche market segments with the aim to exploit market opportunities worldwide. Specialisation in product and know-how is combined with global marketing activities. HCs are very close to their top customers. In order to fulfil unique requirements of their clients, HCs use a well-approved range of technologies which they can adjust at customer's options. The accumulation of technological and intellectual knowledge is a necessary capacity that is difficult to copy by others. You usually find in HCs a pronounced willingness to invest in R&D. Simultaneously, HCs put sufficient resources in marketing and offer consulting and value added services for their customers. Finally, HCs are aware that the qualification, training, and motivation of employees are necessary preconditions for the accumulation of technological knowledge and the performance on the market.

3. METHODOLOGY AND DATA

Identification of Hidden Champions

Most existing studies on HCs follow a bottom-up (or list-based) approach to identify this specific group of firms. Researchers establish a list of firms that meet the criteria of being a HC, such as high market share, global activity, niche-market focus, relatively small size, and significant growth. Through examining case by case, it can be ensured that all firms entering the list actually meet the criteria. A drawback of this approach is a likely bias towards markets in which researchers expect to find HCs. It is also extremely difficult to establish a complete list of HCs as information on the relevant criteria is usually not public, and not all 'real' HCs disclose such information. List-based approaches frequently miss HCs that are very small, young or operating in markets outside the radar of researchers.

In our study, we follow a top-down approach. We employ a representative database of firms in Germany covering all firms with 5 or more employees in all manufacturing and business-oriented service sectors. For the key characteristics of a HC, being among the top-3 suppliers in its market, we do not have a direct measure (i.e. asking firms if they are among the top 3 firms in their main market). We are also sceptical that such a direct measure would be reliable since it is rather subjective as firms may delineate markets in terms of geography, customer groups or product characteristics in a way that they rank among the top 3. Instead, we combine information on a firm's market share in its main product market, its export share, the location of the firm's customers and the firm's sale growth (relative to market growth) to identify HCs. Specifically, HCs are firms with a global market orientation (export share >50% and sales to customers located outside Europe) and a high and or increasing market share (depending on the size of the global market). Above average market growth is defined as an increase in firm sales in the past 5 years by at least 10% above the industry average. The rationale behind this definition is that HCs need to serve the global and not just a regional market, and that they need to be a relevant market player. We assume that a market share of 10% or more qualifies as a top-3 supplier. The larger the total market volume is, the more likely it is that the number of competitors increases, pushing the market share of the third largest supplier downwards[2]. While we do not know the market share to qualify as top-3, we assume that relatively high market shares in combination with an increase in market share (which results from an above average market growth) makes a firm a visible and relevant market player that will be considered by other competitors as a leading firm. In addition, we restrict HCs to have less than 10,000 employees to meet the criteria of excluding very large firms.

Our database is the German Innovation Survey, which is the German part of the Community Innovation Survey (CIS) coordinated by the Statistical Office of the European Commission (ESTAT). The German Innovation Survey is designed as a panel survey and conducted annually (Peters and Rammer, 2013 and Behrens *et al.*, 2017 for more details). The survey rests on a 13% stratified random sample of the firm population in Germany and allows to extrapolate survey results to the total firm population. This feature provides the opportunity to calculate an estimate on the total number of HCs in Germany across sectors and size classes. The gross sample size is about 35,000 firms. Owing to a response rate of 25 to 30%, the average weight per firm in the sample is about 25 but varies greatly among sectors and size class owing to disproportionate sampling quotas.

We use data from six survey waves (reference years 2006, 2008, 2010, 2012, 2014, 2016) as only these waves contained all the information required for identifying HCs. The export criteria is measured by two indicators, the ratio of export sales over total sales, and whether firms have sold products outside Europe. The German Innovation Survey obtains information on a firm's market share (ms) for its main product line j,[3] along with the sales share of the main product line in a firm's total sales (s_j). This data can be used to estimate the total market volume (MV) for a firm's main product line: $MV_j = (S \cdot s_j) / ms_j$ (S representing the volume of sales).

Above market growth is calculated using panel data on the firms' sales development in the past five years compared to the development of sales in a firm's NACE 3-digit industry.

Sector and Size Distribution of Hidden Champions

In 2016, the extrapolated total number of HCs in Germany was close to 1,800, which is broadly in line with findings by Simon (2012) and Langenscheidt and

[2] For a market volume of 0.2 to 0.5 billion € annual sales, the market share threshold is set to 7%, for 0.5 to 1.0 billion €, 3% apply, and for a market volume beyond € 1.0 billion, a 1% market share in used.

[3] The market share is a self-reported figure and hence risks some overstatement by firms, e.g. by delineating markets in terms of geography, customer groups or product characteristics in a way that their market share raises. We do not think that this is a serious problem in our data because there is no incentive for firms to overstate their market share. The market share question is one of many on a firm's market environment and performance. The survey is not used for benchmarking purposes. It is also not obvious to respondents for what purpose this information will be used.

Venohr (2015). These firms employed more than 490,000 persons and had total sales in 2016 of €285 billion. The number of HCs steadily grew over the past 8 years, from less than 1,500 firms in 2008, though the number has been higher in 2006 (~1,700).

The distribution of HCs across sectors and size classes is heavily disproportionate. For the average of the years 2006 to 2016, 0.6% of all firms in the total population of the Innovation Survey have been classified as HCs. This share is between 3 and 5% in sectors such as the electronics, chemical & pharmaceutical, machinery and vehicles industries (see Table 1). In the service sectors, HCs are very rare, except for IT services and engineering/R&D services (0.5% of all firms in these sectors), reflecting the large barriers for small service firms to supply global markets. By size class, firms with 500 to 999 employees report the highest share of HCs in Germany (7.6%). Among firms with less than 50 employees, less than 0.5% are HCs.

In absolute terms, the largest number of HCs in Germany is found in the machinery industry. With about 400 HCs, one out of four German HCs operates in this sector. About 200 HCs are found in the electronics industry (incl. semiconductors, computers, communication technologies, instruments and optical products). The size classes with 50 to 999 employees and 100 to 249 employees host the largest absolute number of HCs in Germany (close to 350 each).

Comparing Hidden Champions with Other Firms Using Matching

For comparing HCs with other firms, one has to take into account their specific industry and size structure which limits the informative value of a simple comparison with the average firm since such a comparison may first of all reflect sector and size differences, but less the different strategic orientation of HCs. For establishing a proper 'control group' of other firms, we use the matching technique. For each HC in our sample we match another firm (which has been observed in the same year) that is as similar as possible with respect to the sector (NACE 2-digit), size (number of employees, using eight size classes) and age. We include age because becoming a HC usually takes time so that comparing HCs with much younger firms is not meaningful.

We apply a propensity score matching using the Mahalanobis Distance measure (Rosenbaum and Rubin, 1983; Smith and Todd, 2005). The result of the propensity score model is reported in Table 6 in the Appendix. The probability that a firm is classified as a HC is strongly influenced by size, age and sector. The observation year also affects the HC probability, with a statistically significant positive effect for the years 2006 and 2008 as compared to 2016 when controlling for sector, size and age.

Table 1. **HIDDEN CHAMPIONS IN GERMANY BY SECTOR AND SIZE CLASS (average 2006-2016)**

Sector (NACE) / size class	Absolute number	Share in all HCs (%)	Share in all firms (%)
Manuf. of Food, Beverages, Tobacco (10-12)	23	1.4	0.1
Manuf. of Textiles, Clothes, Leather (13-15)	34	2.1	1.4
Manuf. of Wood Products, Paper (16-17)	71	4.3	1.4
Manuf. of Chemicals, Pharmaceuticals (19-21)	103	6.3	4.2
Manuf. of Rubber and Plastic Products (22)	78	4.8	1.6
Manuf. of Glass, Ceramics, Concrete, Metals (23-24)	142	8.6	2.7
Manuf. of Metal Products (25)	108	6.6	0.5
Manuf. of Electronics, Optical Products (26)	196	12.0	4.8
Manuf. of Electrical Equipment (27)	78	4.7	2.1
Manuf. of Machinery (28)	404	24.7	3.8
Manuf. of Vehicles (29-30)	76	4.7	3.4
Manuf. of Furniture, Medical, Other Products (31-33)	117	7.1	0.8
Mining, Utilities, Waste Management (5-9, 35-39)	8	0.5	0.1
Wholesale Trade, Transportation (46, 49-53)	39	2.4	0.1
Media Services, Telecommunication (18, 58-61)	5	0.3	0.1
IT Services (62-63)	60	3.7	0.5
Financial and Consulting Services (64-66, 69-70, 73-74)	4	0.3	0.0
Engineering and R&D Services (71-72)	87	5.3	0.5
Other Business Services (78-82)	5	0.3	0.0
5 to 9 employees	80	4.9	0.1
10 to 19 employees	169	10.3	0.2
20 to 49 employees	283	17.3	0.5
50 to 99 employees	330	20.2	1.7
100 to 249 employees	347	21.2	2.5
250 to 499 employees	204	12.4	4.6
500 to 999 employees	140	8.6	7.6
1,000 and more employees	83	5.1	6.1
Total	**1,637**	**100.0**	**0.6**

Note: Figures are extrapolated to the total firm population in Germany in the listed sectors and size classes.
Source: German Innovation Survey.

Table 2. **COMPARISON OF HCs AND CONTROLS WITH RESPECT TO HC CRITERIA**

	HCs	Controls before matching					Controls after matching				
	value	value	diff.	s.e.	t-stat		value	diff.	s.e.	t-stat	
Market share (%)	33.9	16.7	17.2	0.9	18.5	***	18.9	15.0	1.2	12.6	***
Market size (billion €)	1.93	2.68	-0.75	1.0	-0.75		5.57	-3.64	1.28	-2.84	***
Sales growth (%)	10.36	2.11	8.24	0.29	28.78	***	3.39	6.96	0.44	15.72	***
Export share (%)	63.7	12.3	51.4	0.7	69.9	***	32.0	31.7	1.2	26.8	***
Sales outside Europe (% of firms)	92.1	28.7	63.3	1.6	39.6	***	65.8	26.3	2.1	12.5	***
No. of full-time employees (#)	502.5	122.3	380.3	14.7	25.94	***	417.9	84.6	46.4	1.82	*

Source: German Innovation Survey.

The total number of HC observations in our sample (firm x year) providing complete information on the matching variables is 1,011 for the six observation years (i.e. on average 170 per year). Although the German Innovation Survey is based on a panel sample, only few firms participate every year in the survey. We identified 588 individual HCs participating at least once in the 2006 to 2016 period. At the same time, there are 102,064 potential control observations in the data set (about 17,000 per year), guaranteeing a high quality of matching results. In fact, we were able to match for each HC a control group firm from the same sector and size class with a very similar age and an observation for the same year. Table 7 in the Appendix contains key statistics on the high quality of our matching results.

After matching, the key distinguishing characteristics of HCs as compared to the control group remain. The average market share of HCs is 33.9% and 18.9% for the control group. Note that the market share of the control group firms does not necessarily refer to the world market, but to a geographically confined (regional) market. The size of the sales market of HCs is significantly smaller (€1.9 billion on average) than the one of control group firms (€5.6 billion). HCs realised a significantly higher medium-term sales growth of more than 10% p.a., compared to 3.4% for the controls. The export share of HCs (63.7%) clearly exceeds the one of the control group firms (32.0%). While HCs have sales outside Europe in most years, this is the case for 65.8% of the control firms. The average number of employees in HCs is 502, while the control group firms are somewhat smaller (418), though the difference is statistically only weakly significant (note that matching for size was not performed on the absolute number of employees but by belonging to the same size class). The differences between HCs and other firms are larger before matching than after matching, pointing to the importance of the matching approach for a proper comparison of HCs with other comparable firms.

4. EMPIRICAL ANALYSIS

In order to characterise the peculiarities of HCs with respect to processes, position and path, we employ a variety of indicators on each of the three dimensions. The choice of indicators is restricted, however, by the availability of relevant measures in the innovation survey. Since the survey has not been designed to analyse strategy and management in HCs, but mainly serves the requirements of European and national innovation statistics, we were not able to cover all aspects of 'The Dynamic Capabilities of Firms'. Nevertheless, we have a number of variables that proxy the main concepts of dynamic firm capabilities. For each variable, we test whether the performance of HCs differs significantly from the performance of the control group firm, using the propensity score matching method. Most variables are available for all six reference years of our data set. The results presented below represent the average over the entire period covered in this study (2006 to 2016).

Table 3. **INDICATORS ON THE POSITION OF HCs AND CONTROLS**

	HCs	Controls after matching				
	value	value	diff.	s.e.	t-stat	
Financial resources						
Productivity (net value added per full-time employee, m €)	0.13	0.10	0.03	0.01	5.54	***
Profit margin earnings before taxes per sales, %)	7.68	5.56	2.12	0.34	6.26	***
Innovation expenditure over sales (%)[a)]	5.87	5.42	0.45	0.58	0.77	
Share of capital expenditure in total innovation expenditure (%)[a)]	30.7	36.5	-5.9	1.9	-3.13	***
Fixed capital expenditure per sales (%)	4.19	4.18	0.02	0.30	0.06	
Software expenditure per sales (%)	1.06	1.02	0.04	0.13	0.26	
Marketing expenditure per sales (%)	1.23	1.29	-0.06	0.14	-0.46	
Innovative assets (share in all firms, %)						
Product innovations	73.5	65.1	8.5	2.1	4.03	***
Process innovations	51.8	51.7	0.1	2.3	0.04	
Organisational innovation	60.7	62.2	-1.5	2.3	-0.62	
Marketing innovation	54.6	53.2	1.4	2.4	0.57	
Market novelties[a)]	49.6	31.6	18.1	2.3	7.92	***
Product line novelties[a)]	44.7	35.7	9.0	2.3	3.91	***
Unit cost reduction from process innovation[a)]	31.3	23.5	7.8	2.1	3.73	***
Quality improvement from process innovation[a)]	32.7	24.1	8.6	2.1	4.06	***
Innovation results (%)						
Sales share of product innovations[a)]	20.3	16.5	3.8	1.1	3.44	***
Sales share of market novelties[a)]	6.8	4.4	2.4	0.6	3.95	***
Sales share of product line novelties[a)]	4.3	3.5	0.8	0.5	1.61	
Share of unit cost reduction owing to process innovation[a)]	2.2	1.7	0.5	0.3	1.93	*
Increase in sales due to quality improvement[a)]	2.0	1.4	0.6	0.3	2.09	**
IP protection methods used (share in all firms, %)						
Patents	64.1	53.2	10.9	3.0	3.64	***
Utility patents	45.0	34.6	10.4	2.9	3.54	***

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	HCs	Controls after matching				
	value	value	diff.	s.e.	t-stat	
Industrial designs	24.4	23.3	1.1	2.6	0.44	
Trademarks	47.2	42.3	4.9	3.0	1.62	
Copyright	28.1	27.3	0.8	2.7	0.30	
Secrecy	76.3	69.5	6.9	3.1	2.20	**
Complex design	51.4	44.1	7.3	3.5	2.10	**
Lead time	67.5	61.9	5.6	3.3	1.67	*
Focus of competitive strategy (mean 4 pt Likert scale, 0-3)						
Improving your existing goods or services	2.55	2.45	0.09	0.10	0.93	
Introducing entirely new goods or services	1.92	1.62	0.30	0.12	2.43	**
Reaching out to new customer groups	2.05	1.95	0.10	0.12	0.82	
Customer specific solutions	2.43	2.22	0.21	0.11	1.96	**
Low-price	1.25	1.36	-0.11	0.11	-0.95	
Structure of supplies and sales (%)						
Sales share of 3 main customers	35.4	31.5	4.0	3.1	1.27	
Supply share of 3 main suppliers	33.1	36.1	-3.1	3.0	-1.04	
Sales share main product	66.9	65.8	1.1	1.3	0.90	
Competitive environment (mean 4 pt. Likert scale, 0-3)						
Rapid aging of product	0.92	0.98	-0.06	0.04	-1.42	
High uncertainty about technological change	1.10	1.13	-0.03	0.05	-0.54	
Own products easy to substitute by competitor products	1.47	1.60	-0.13	0.05	-2.69	***
High threat by market entries	1.28	1.37	-0.09	0.05	-1.83	*
Competitors' actions difficult to predict	1.47	1.51	-0.05	0.04	-1.06	
Change in demand difficult to predict	1.66	1.72	-0.06	0.05	-1.10	
Strong competition by competitors from abroad	1.86	1.63	0.23	0.05	4.27	***
Product price increases lead to immediate loss of clients	1.50	1.74	-0.24	0.07	-3.39	***
No of competitors (mean 6 pt. ordinal scale)[b]	2.58	3.13	-0.55	0.08	-6.50	***

Notes: [a] Propensity score models also include a dummy variable 'introduction of innovations', implying that HCs with innovations are compared with control group firms also having introduced innovations, and vice versa.

[b] 0, 1-5, 6-10, 1--15, 16-50, 51+

Source: German Innovation Survey.

For the position of HCs, we consider six groups of indicators. For financial resources, we find that HCs have a significantly higher productivity and a higher profit margin than control group firms. In terms of labour productivity (net value added per full-time employee), HCs outperform the control group by 29%. The average profit margin of 7.7% is 38% higher than among comparator firms. The better financial position indicated by both variables does not transfer into higher investment, however. The level of expenditure on intangible assets such as innovation (including R&D), software and marketing is not significantly different from the control group, nor is capital expenditure in fixed assets. Part of the HCs' more comfortable financial situation is re-invested into people, reflected by a higher average wage level of 11% compared to the control group (see Table 5).

In terms of innovative assets, HCs focus on product innovations while the share of HCs with process, organisational or marketing innovation does not significantly differ from comparator firms. Product innovation is significantly more ambitious in terms of the degree of novelty. The share of HCs with new-to-the-market product innovations (49.6%) exceeds the one of the control group (31.6%) by 57%. For product line novelties (i.e. new products with no predecessor product in the firm), the difference is 25%. Though HCs do not introduce process innovations more frequently, they more often yield unit cost reductions and quality improvements from these innovations.

The superior innovation performance is also revealed by market results of innovations. The sales share of product innovation is 20.3% for HCs, compared to 16.5% of the comparator firms. For the sales share of new-to-the-market innovations, the relative gap is even larger (6.8% for HCs vs. 4.4% for the control group). HCs also gain higher results from process innovation both in terms of cost savings and sales increase from quality improvement.

For protecting their innovative assets, HCs rely significantly stronger on patenting as well as on informal protection methods (secrecy, complex design). Combining patents and secrecy indicates that HCs' innovations rest both on novel technological knowledge (if to be protected through patents) as well as tacit, non-obvious knowledge (Hall *et al.*, 2014). Interestingly, there is only a slightly higher share of HCs relying on lead time, and other formal protection methods (industrial designs, trademarks, copyrights) are not used more frequently.

The strong focus of HCs on innovations with a higher degree of novelty is mirrored in the competitive strategy pursued by the firms. HCs more often focus on the introduction of entirely new products. This 'technology leadership' strategy is combined with a customisation strategy which put emphasis on customer-specific solutions. There are no significant differences for other competitive strategies such as reaching out to new customer groups or focusing on low price. HCs also do not differ in terms of customer and supplier concentration. The three main customers account for 35% of HCs total sales, which is a high value, but almost matched by comparator firms (32%). Product diversification is rather low, with a sales share of the main product line of 67%, which is only marginally higher than the control group's value (66%).

HCs business strategy results in a distinct competitive environment for HCs which is characterised by a low substitutability of own products, less threat from market entries and a low price elasticity of demand. The strong international orientation of HCs implies a higher competitive pressure from abroad. The number of competitors is significantly lower than for control group firms.

Turning to managerial and organisational processes of HCs, we first examine the management capabilities, using managers' assessment of the significance of eleven items that represent a firm's ability to manage change and innovation. For four items, HCs outperform control group firms. HCs management reports higher capabilities for developing new technical solutions, providing scope for trial and error, leaving a high degree of personal responsibility to employees, and building upon the creativity of employees. There are no significant differences for items related to intra-firm cooperation, incentives to employees or the speed of taking up and transferring ideas.

Another aspect of processes refers to external relations. We find HCs to engage more frequently in co-operation with external partners. This applies to all type of partners except competitors. The largest difference to the control group is found for co-operation with universities and research institutes. HCs are also more likely to contract out R&D. However, HCs rely more often on their own capacity when developing new products and are less frequently engaged in joint new product development.

A final process-related group of variables refers to the information sources used by firms to inform and guide their innovative activities. HCs report significantly higher importance for five sources (ranked by the difference to control group firms): universities, patent files, the own firm, customers, and journals. For all other information sources, including suppliers and competitors as well as fairs or crowd sourcing, no significant differences emerge. The patterns reveal the strong focus of HCs on scientific knowledge (related to technology leadership) and in-house sources. The higher importance of customers as information source is only significant at a rather low level of statistical confidence which indicates that customisation is less a distinctive feature of HCs as compared to technology leadership.

Table 4. **INDICATORS ON MANAGERIAL AND ORGANISATIONAL PROCESSES OF HCs AND CONTROLS**

	HCs	Controls after matching				
	value	value	diff.	s.e.	t-stat	
Management capabilities (mean 5 pt. Likert scale, 1 to 5)						
Detecting new client's needs	3.89	3.74	0.15	0.10	1.44	
Development of new technical solutions	3.96	3.72	0.24	0.11	2.33	**
Scope for development via 'trial and error'	2.95	2.75	0.20	0.11	1.78	*
Strong individual responsibility of employees	3.77	3.53	0.24	0.10	2.46	**
Creativity of employees	3.77	3.59	0.18	0.10	1.89	*
Incentive schemes for employees to innovate5	3.04	2.87	0.17	0.11	1.54	
Stimulation of internal competition between projects	2.19	2.17	0.02	0.10	0.17	
Internal co-operation between departments / firm units	3.56	3.46	0.10	0.11	0.94	
Inclusion of external partners	2.85	2.76	0.09	0.11	0.82	
Rapid transfer of new ideas to market launch	3.28	3.26	0.03	0.11	0.27	
Rapid imitation of competitor's innovations	3.02	2.96	0.06	0.11	0.58	
Co-operation and co-development (share in all firms, %)[a)]						
Co-operation agreement	50.4	38.4	12.0	2.6	4.68	***
Co-operation within own enterprise group	20.0	15.8	4.2	2.0	2.13	**
Co-operation with customers	24.0	18.3	5.7	2.1	2.71	***
Co-operation with suppliers	20.6	15.7	4.9	2.0	2.49	**
Co-operation with competitors	8.0	8.2	-0.1	1.4	-0.09	
Co-operation with consultants, private laboratories	18.0	14.2	3.8	1.9	2.03	**
Co-operation with universities	38.9	29.5	9.4	2.4	3.84	***
Co-operation with research centres	22.4	15.6	6.8	2.0	3.38	***
Contracted-out R&D	46.0	31.2	14.8	2.5	5.87	***
Mainly own development of product innovations	58.6	51.2	7.4	2.4	3.07	***

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	HCs	Controls after matching				
	value	value	diff.	s.e.	t-stat	
Mainly joint development of product innovations	26.8	31.9	-5.1	2.2	-2.30	**
Mainly development of product innovations by others	2.1	3.2	-1.1	0.8	-1.34	
Mainly own development of process innovations	33.2	29.7	3.4	2.2	1.54	
Mainly joint development of process innovations	22.1	23.6	-1.5	2.0	-0.72	
Mainly development of process innovations by others	3.1	3.3	-0.2	0.9	-0.24	
Information sources used (mean of 4-point Likert scale, 0 to 3)[a]						
Own firm	2.31	2.13	0.17	0.08	2.24	**
Customers	2.06	1.92	0.14	0.08	1.67	*
Suppliers	1.26	1.25	0.01	0.07	0.10	
Competitors	1.44	1.43	0.02	0.07	0.21	
Consultants, private R&D service firms	0.81	0.82	-0.01	0.06	-0.17	
Universities	1.26	1.05	0.21	0.07	3.00	***
Public research centres	0.78	0.70	0.08	0.06	1.23	
Fairs	1.48	1.37	0.11	0.07	1.53	
Journals	1.19	1.07	0.13	0.06	1.98	**
Chambers of commerce	0.78	0.77	0.01	0.06	0.15	
Patent files	0.96	0.77	0.19	0.06	2.97	***
Standardisation documents	0.85	0.79	0.07	0.06	1.10	
Crowdsourcing	0.35	0.35	0.00	0.08	0.00	

Notes: [a] Propensity score models include a dummy variable 'introduction of innovations', implying that HCs with innovations are compared with control group firms also having introduced innovations, and vice versa.

Source: German Innovation Survey.

Finally, we look at differences in the path of HCs. For measuring this dimension, we rely on indicators that represent the accumulation of technological and intellectual knowledge. We find that HCs are significantly more often engaged in continuous R&D, meaning that they employ dedicated R&D workers and run an in-house R&D lab. 67% of HCs belong to this group, compared to 53% among comparator firms. In contrast, HCs are less frequently conducting R&D on an ad-hoc base (12%), while 18% of control group firms are occasional R&D performers.

The share of R&D expenditure is not significantly higher, however. The stock of patents which counts all patents applied at the German, European or International patent office in the prior 20 years is clearly higher for HCs (91 per HC, 55 for control group firms). Human capital is another distinct difference. 24% of HCs' workforce hold a university degree, compared to 19% among comparators. Training expenditure per employee are also significantly higher, as is the wage level, indicating a large stock of human capital.

Table 5. **INDICATORS ON PATH OF HCs AND CONTROLS**

	HCs	Controls after matching				
	value	value	diff.	s.e.	t-stat	
R&D expenditure over sales[a)]	3.80	3.18	0.63	0.47	1.33	
Continuous in-house R&D (share in all firms, %)	66.7	52.9	13.8	2.2	6.22	***
Occasional in-house R&D (share in all firms, %)	12.4	17.9	-5.5	1.6	-3.36	***
Stock of patents (#)	91.0	55.0	36.0	15.6	2.30	**
Share of graduates (%)	23.8	18.6	5.2	1.1	4.97	***
Training expenditure per employee (1,000 €)	0.61	0.47	0.14	0.05	2.93	***
Wage level (salaries and wages per full-time employee, 1,000 €)	54.5	49.1	5.4	1.1	5.01	***

Notes: [a)] Propensity score models include a dummy variable 'introduction of innovations', implying that HCs with innovations are compared with control group firms also having introduced innovations, and vice versa.

Source: German Innovation Survey.

5. CONCLUSIONS

In this paper we analysed the distinct features of Hidden Champions from Germany in terms of their business strategy and innovation management. Using a matching technique, we compared a representative sample of HCs across all sectors and size classes with other firms from the same sector, size class and age. Investigating three dimensions of the dynamic capabilities of firms (processes, position, path), we find that HCs pursue an innovation-based business strategy that focuses on technological excellence combined with strong emphasis on customer-specific solutions (customisation) to gain global leadership in niche markets. The active strategic approach to innovation of HCs is certainly a demanding one which requires high managerial and organisational capabilities. For those firms that are able to pursue this route, the strategy pays off. HCs achieve a substantially higher profit margin (a premium of two percentage points on average) and a higher productivity (+29% on average). HCs operate in a more comfortable competitive environment, being less exposed to price competition and threat by new entries.

But how do HCs translate the business strategy into practice and how do they build an innovative organisation? Despite their strong innovation focus, HCs do not spend more on innovation and R&D while market results of innovations are significantly higher both for product and process innovation. The finding indicates that HCs allocate their resources very efficiently. The higher efficiency can be linked, among others, to four management practices that could be lessons for other SMEs.

- First, HCs put strong emphasis on own new technology development, especially new technical solutions for clients based on continuous in-house R&D and close links to science.
- Secondly, HCs pursue open innovation strategies and networking without compromising control over the new product development process.
- Thirdly, they apply a rather complex IP management by combining patent protection, secrecy and complex design of their products, the latter complicating or impeding reverse engineering by competitors.
- Finally, and perhaps most importantly, HCs invest significantly more resources into human capital, resulting in a better skilled work force that enjoys creativity, responsibility and freedom for developing new ideas and engaging in innovation.

Overall, we find evidence that HCs build-up, maintain and enlarge distinguishing and difficult-to-replicate competitive advantages.

While our research is based on a unique representative data base of German HCs, the analysis was restricted by a lack of data on actual management practices in HCs. This clearly limits our ability to derive detailed management recommendations. While our findings point to the need for developing a variety of capabilities simultaneously for becoming a HC, more case-study based research would be needed to exemplify how this actually can take place in practice.

As HCs are successful firms, they have attracted attention from policy makers who wish to foster the emergence of HCs and their market performance. But making a case for active public policy support in favour of HCs is difficult. The key competitive advantage of HCs is strategic orientation and superior capabilities. Both tend to be the results of competent and courageous entrepreneurs. Firms that do not manage to become HCs are hardly prevented from doing so by specific barriers or market failures which could be addressed by policy. Nevertheless, as HCs are highly innovative firms, they face the typical barriers to R&D - knowledge spillovers and high uncertainty. Offering effective R&D support programmes is probably the best way for policy to support HCs.

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APPENDIX

Table 6. **ESTIMATION RESULTS OF THE PROPENSITY SCORE MODEL FOR THE MATCHING ANALYSIS**

Variable	Coefficient	Std. Err.	z Value	sig.[a]
Size dummies[b]				
<20 employees	-2.391	0.138	-17.36	**
20-49 employees	-1.641	0.132	-12.44	**
50-99 employees	-1.081	0.125	-8.67	**
100-249 employees	-0.839	0.118	-7.13	**
250-499 employees	-0.234	0.121	-1.94	
500-999 employees	-0.158	0.132	-1.19	
Age (years)	0.002	0.001	3.50	**
Sector dummies (NACE)[c]				
Manuf. of Food, Beverages, Tobacco (10-12)	0.804	0.564	1.43	
Manuf. of Textiles, Clothes, Leather (13-15)	2.380	0.530	4.49	**
Manuf. of Wood Products, Paper (16-17)	2.578	0.522	4.94	**
Manuf. of Chemicals, Pharmaceuticals (19-21)	2.765	0.515	5.37	**
Manuf. of Rubber and Plastic Products (22)	2.522	0.521	4.84	**
Manuf. of Glass, Ceramics, Concrete, Metals (23-24)	2.740	0.513	5.34	**
Manuf. of Metal Products (25)	2.005	0.521	3.85	**
Manuf. of Electronics, Optical Products (26)	3.402	0.508	6.70	**
Manuf. of Electrical Equipment (27)	2.505	0.524	4.78	**
Manuf. of Machinery (28)	3.162	0.506	6.25	**
Manuf. of Vehicles (29-30)	2.770	0.516	5.37	**
Manuf. of Furniture, Medical, Other Products (31-33)	1.851	0.525	3.53	**
Mining, Utilities, Waste Management (5-9, 35-39)	0.038	0.602	0.06	
Wholesale Trade, Transportation (46, 49-53)	1.328	0.522	2.54	*
Media Services, Telecommunication (18, 58-61)	0.453	0.613	0.74	
IT Services (62-63)	1.327	0.557	2.38	*
Financial, Consulting, Business Services (64-66, 69-70, 73-74, 78-82)	-0.566	0.585	-0.97	
Engineering and R&D Services (71-72)	2.045	0.525	3.90	**

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Variable	Coefficient	Std. Err.	z Value	sig.[a)]
Year dummies[d)]				
2006	0.377	0.115	3.28	**
2008	0.220	0.117	1.88	
2010	0.073	0.116	0.63	
2012	0.043	0.116	0.37	
2014	-0.068	0.120	-0.57	
Constant	-5.642	0.517	-10.91	**
No. of observations	103,075			
No. of treated observations ('Hidden Champions')	1,011			

a) **: p<0.01; *: p<0.05
b) Reference: 1,000 or more employees
c) Reference: other sectors (NACE 1-3, 41-43, 45, 47, 55-56, 68, 75, 77, 84-88, 90-96)
d) Reference: 2016

Source: German Innovation Survey.

Table 7. **QUALITY OF MATCHING RESULTS**

	Unmatched	Matched
Pseudo R^2	0.161	0.000
Likelihood Ration Chi^2	1,832.18	0.53
$p>Chi^2$	0.000	1.000
Mean bias	22.0	0.1
Median bias	19.4	0.0
B value	147.8	3.2
R vlaue	0.66	1.21
Observations of concern (variance ration in [0.5, 0.8) or (1.25, 2]) (%)	27	0
Bad observations (variance ration in <0.5 or >2) (%)	48	0
Summary of distribution of abs(bias)	Before matching	After matching
Mean	22.039	0.121
Standard deviation	16.673	0.516
Variance	277.987	0.266
Skewness	1.554	5.128
Kurtosis	6.126	28.344
90% percentile	37.944	0.260
95% percentile	54.281	0.521
99% percentile	81.165	2.930

Source: German Innovation Survey.

Cómo internacionalizar en un mundo de cambios constantes

How to internationalise in a world of constant changes

El presente artículo hace un repaso a una serie de ingredientes orientados a la internacionalización de las empresas en el actual contexto mundial. Comienza con unos apuntes sobre la globalización y su impacto en la competitividad de Euskadi, para centrarse a continuación en los elementos clave que faciliten a las empresas vascas competir con éxito en mercados internacionales. Estos elementos son: el posicionamiento global de las empresas, el crecimiento inorgánico, la gestión del talento, la gestión multicultural, la utilización de la diplomacia corporativa, la adopción de Industria 4.0 y el desarrollo de perfiles nuevos para el profesional de mañana. Para ello, el rol de los agentes públicos es clave, ya que las pequeñas y medianas empresas no siempre disponen de las herramientas necesarias o capacidades corporativas para conquistar nuevos mercados y clientes, para hacer frente a las disrupciones tecnológicas, para vincular talento, crecer inorgánicamente y gestionar organizaciones del siglo XXI. El autor rompe una lanza por una administración activa y comprometida con la internacionalización y competitividad de las empresas y expresa su convencimiento de que los gobiernos disponen de instrumentos adecuados para apoyar la creación de riqueza por parte de las empresas; una riqueza que a su vez puede ayudar a reducir la desigualdad entre los ciudadanos.

Artikulu honek gaur egungo munduko testuinguruan enpresen nazioartekotzerako beharrezko osagai batzuen errepasoa egiten du. Globalizazioaren eta Euskadiren lehiakortasunean duen eraginari buruzko apunte batzuekin hasten da. Geroago, nazioarteko merkatuetan arrakastaz lehiatu ahal izateko euskal enpresen funtsezko elementuetan jartzen du arreta. Aipatutako elementuak honakoak dira: enpresen munduko-posizionamendua, hazkunde inorganikoa, talentuaren kudeaketa, multikultura-kudeaketa, Diplomazia Korporatiboaren erabilera, 4.0 Industria hartzea eta biharko profesionalarentzako profil berriak garatzea. Horretarako, agente publikoen rola garrantzitsua da: enpresa txiki eta ertainek ez dituzte beti izaten bezero eta merkatu berriak konkistatzeko, disrupzio teknologikoei aurre egiteko, talentua uztartzeko, inorganikoki hazteko eta XXI. mendeko organizazioak kudeatzeko beharrezko tresnak edo gaitasun korporatiboak. Autoreak enpresen lehiakortasunarekin eta nazioartekotzearekin konpromisoa duen administrazio aktibo baten alde egiten du eta enpresen bitartez aberastasuna sortzen laguntzeko gobernuek tresna egokiak dituztela bere uste sendoa adierazten du; aberastasun horrek, era berean, herritarren arteko desberdintasunak gutxitzen lagun dezakeelakoa.

This article reviews a series of contents indicated for the internationalization of companies in the current global context. It begins with some notes on globalization and its impact on competitiveness in the Basque Country -Euskadi, then moves on to focus on key elements of Basque companies that make them able to compete successfully in international markets. The elements in question are: the global positioning of companies, inorganic growth, talent management, multicultural management, the use of Corporate Diplomacy, adopting Industry 4.0 and the development of new profiles for the professional of tomorrow. Therefore, the role of public agents is key: small and medium sized enterprises do not always have the necessary tools or corporate capabilities to conquer new markets and customers, to face technological disruptions, link talent, grow inorganically and manage 21st century organizations. The author defends an active administration committed to the internationalization and competitiveness of companies and he expresses the conviction that governments should have suitable instruments to support the creation of wealth by companies; wealth that in turn can help reduce inequality among citizens.

Josu Ugarte Arregui
Presidente Schneider Electric Industry España y Portugal

Índice

Palabras clave: globalización, talento, diplomacia.

Keywords: globalisation, talent, diplomacy.

Nº de clasificación JEL: D21, L21, F23

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1. INTRODUCCIÓN

El contexto mundial ha cambiado radicalmente. Con consecuencias nunca vistas en países, empresas y personas que nos convertirán (ya lo están haciendo) en ganadores o perdedores en la nueva complejidad[1]. Y el futuro se presenta todavía más complicado. Porque confluyen al mismo tiempo globalización, geopolítica e interdependencia, por un lado, revolución tecnológica, digitalización y aceleración por otro, y personas, talento y ecosistema.

Me centraré en este documento en el rol de las personas y de las empresas en este nuevo mundo. No profundizaré en el rol de la Administración, aunque discrepo (de Zygmunt Bauman[2] y de Dani Rodrik[3]) respecto al mensaje de que «poco podemos hacer». Creo que los países tienen instrumentos adecuados para conseguir mejorar el

[1] Nueva complejidad. Es la consecuencia del mundo VUCA (acrónimo de *volatility, uncertainty, complexity, ambiguity*) que ya se había mencionado tras los atentados del 11 de septiembre de 2001 en el que el ejército norteamericano reconoce que hemos entrado en una fase de dificultad de predecir acontecimientos: el mundo volátil, incierto, complejo y ambiguo. Este concepto describe el nuevo contexto geopolítico resultado de un proceso que ha transformado los parámetros y relaciones económicas globales afectando al entorno de la competitividad en el que empresas y regiones (países) se juegan en el futuro su liderazgo y el bienestar de los ciudadanos.

[2] Zygmunt Bauman: «¿La riqueza de unos nos beneficia a todos?». Ed. Paidós.

[3] Dani Rodrik: «La paradoja de la globalización». Ed. Antoni Bosch.

bienestar de los ciudadanos. Y para ello se necesitan políticas de creación de riqueza y reducción de desigualdad. Pero, primero, de creación de riqueza. No podremos repartir nada si no creamos. Y, el instrumento central en la creación de riqueza es la empresa.

Parto del hecho de que cada país o región tiene capacidad de 'defenderse' en la nueva complejidad si entiende correctamente cuáles son sus límites y qué margen de maniobra posee. Y no deberíamos conformarnos con ser meros espectadores de la globalización y de sus consecuencias. No debemos resignarnos a que otros decidan por nosotros.

Enfocaré este trabajo de la siguiente manera: comenzaré con algunos apuntes sobre la globalización y su impacto en la competitividad del país, para continuar centrándome en los elementos clave necesarios para que Euskadi afronte con mayor éxito si cabe un futuro lleno de riesgos y oportunidades. Estos elementos son: el crecimiento inorgánico, clave en el posicionamiento internacional de las empresas y en la búsqueda del tamaño, la gestión del talento, la gestión multicultural, la utilización de la diplomacia, algunos apuntes sobre Industria 4.0 para terminar con las características del nuevo profesional.

Comencemos por la comprensión de la globalización que se inicia como consecuencia de los Acuerdos de Bretton Woods de 1944, y que son el origen de la gobernanza mundial y de la creación de las instituciones financieras mundiales (esto es, el Fondo Monetario Internacional y el Banco Mundial), o el origen de la Organización Mundial del Comercio (OMC, antes GATT). Por entonces el Norte era industrial y el Sur, no. En esa época se produce el despegue del crecimiento en los países del Norte (USA, Canadá, Europa, Japón) debido a la innovación, la escala y la especialización que llevan a un incremento de la renta per cápita. Además, el mundo no era plano y la producción estaba clusterizada, la proximidad reducía los costes de coordinación y complejidad y la concentración de proveedores y formación. Y lo más importante es que en esos años no había diferencias importantes de coste entre Norte y Sur o entre desarrollados y emergentes. Y todavía existía proteccionismo: «Abro mis fronteras si tú lo haces».

La segunda ola transcurre de 1980 a 2001. Durante ese periodo, hay un desarrollo importante de las tecnologías de la información y del transporte. El container es uno de los elementos más importantes de la globalización. Se desarrollan las comunicaciones, aparecen los ordenadores personales y se reduce la complejidad en la gestión. Los costes de las personas empiezan a ser muy diferentes. El mundo comienza a ser plano y se desarrolla la Inversión Directa en el Exterior, trasladando producciones, tecnología y formación a países emergentes. Se reducen los costes aduaneros. Cambia la relación entre países: «Abro mis fronteras para que tú inviertas».

La tercera ola comienza con la entrada de China en la OMC en 2001. La maduración de las Tecnologías de Información y Comunicación permite gestionar la Fragmentación de la Cadena de Valor, optimizando las operaciones en diferentes geografías (producciones, industria auxiliar, distribución…). Esto se combina con la reducción de aranceles y la acumulación de capital en los países emergentes (inversiones en bienes de equipo). De tal manera que los flujos de producción ya no son en la dirección 'países emergentes hacia países desarrollados' sino en ambas direcciones. Los países emergentes comienzan a desarrollar empresas con presencia mundial y la exportación se hace muy competitiva por las enormes diferencias de coste de las personas en las diferentes áreas. Como consecuencia de esto, la industria migra de Occidente a Oriente y de Norte a Sur, la población en Occidente envejece, el entorno geopolítico se vuelve complicadísimo para la visibilidad de los negocios y nos enfrentamos a disrupciones energéticas y tecnológicas. Es la era de las multilocalizaciones.

Estas disrupciones tecnológicas (desarrollo sensórica, conectividad, *cloud*, ciberseguridad, inteligencia artificial, impresión 3D...) van madurando al mismo tiempo, apalancándose unas sobre otras, democratizando la tecnología y provocando la cuarta ola de la globalización que, a mi modo de ver la podemos fechar en 2011. Por dos razones: aumenta la conciencia sobre la relevancia del concepto VUCA. La segunda razón en el origen de la cuarta ola es el impacto de las plataformas tecnológicas[4]. Para comprobarlo, veamos la evolución de la capitalización de las empresas GAFA+M (Google, Amazon, Apple, Facebook y Microsoft) en el índice Fortune 500. Solo Apple aparecía en la lista de 2006 en la posición 131. En el segundo semestre de 2011, Apple era la segunda, Google la 37 y Amazon la 62. En el segundo trimestre de 2016, las tres primeras son Apple, Alphabet (Google) y Microsoft. La sexta es Amazon y la octava Facebook. Por cierto, aparece ya Alibaba, la plataforma de comercio electrónico china, en el puesto 13.

Por tanto, nos encontramos en un entorno VUCA con impactos en la geopolítica y por tanto en las políticas proteccionistas, con una interdependencia brutal y con cambios radicales en la tecnología, en nuestros modelos de negocio, y con un ingrediente añadido: la aceleración de los cambios. Este es el contexto en el que vamos a tener que 'navegar' personas, empresas y estados. La nueva complejidad muta a una velocidad nunca vista ni imaginada.

¿Y qué impacto tiene este nuevo mundo en la empresa vasca? Muy importante. Como en el resto de empresas y países. Pero con un diferencial. Nuestras empresas en Euskadi son distintas a las de otros países. ¿Por qué? Porque nuestras características son muy diferentes. Los aspectos clave que definen la competitividad, especialmente la industrial, son los siguientes:

- Diferentes niveles de industrialización. La Industria es un sector clave que hay que potenciar. Su impacto en la creación de riqueza, empleo e innovación es colosal. En Euskadi estamos bien posicionados.

[4] Una plataforma tecnológica es un ecosistema que conecta a grupos de interesados en un fin común. Que usan capacidades tecnológicas, habilitan múltiples canales a usuarios para facilitar el acceso a la información y a los servicios (desde cualquier lugar en cualquier momento), en continua evolución para mejorar la experiencia del usuario, buscando la interoperabilidad con otras plataformas (estándares), personalizando las experiencias para que sean únicas. Y su valor aumenta cuando aumentan los usuarios. Y provocan un tsunami en los modelos de negocio tradicionales delimitados por la cadena de valor sectorial.

- Tamaño medio de empresa. En Euskadi las empresas tienen un tamaño menor que en la mayoría de los países con los que competimos (Alemania o Francia entre otros).
- Sectores. Estamos especializados en sectores maduros.
- Nivel tecnológico. Nuestras exportaciones de productos de tecnologías medias-altas y altas son menores que las de los países competidores.
- Tipología de capital empresarial. A mayor porcentaje de empresas familiares, cooperativas u otra forma de capital local, menor riesgo de pérdida de empleo en el país. Además, somos colectivistas (la identidad grupal es más importante que la individual) y esto permite tomar decisiones en función de criterios no solamente económicos.
- Impacto marca-país en el precio. Algunos de nuestros países competidores tienen mejor imagen y por tanto pueden posicionar sus productos con un precio más alto. El precio final de muchos productos y servicios, tanto en B2B como en B2C vienen determinados por el país de origen de la marca, aunque las nuevas tecnologías están alterando las percepciones existentes hasta ahora sobre marca país.
- Niveles de financiación. La política interna y la geopolítica influyen en esta variable, que a su vez afecta muchísimo a las empresas, especialmente a las pymes. La disponibilidad de liquidez y la prima de riesgo son elementos clave en este sentido.

Algunas de estas características distintivas respecto a otras regiones o países han permitido que Euskadi haya podido soportar la crisis sin el drama del paro que se ha vivido en los últimos años en España. Entre ellas, los niveles de industrialización, la composición del capital local y el hecho de ser una comunidad muy colectivista o el grado de colaboración público-privada en temas claves como innovación, promoción o internacionalización. La consecuencia de ello es que apenas han existido ejemplos de deslocalización de empresas vascas.

Esto es importante a la hora de diseñar políticas públicas, evitando estandarizar las soluciones (mirar a los países que han tenido éxito y tratar de copiar sus políticas). No podemos diseñar políticas públicas similares a ningún otro país por las características distintivas de las empresas vascas.

Ahora bien, ante semejante desafío, las personas y las empresas no podemos continuar actuando de la misma manera que hasta ahora. Los próximos 5 años van a ser muy muy diferentes a los 5 últimos. El futuro y el pasado son asimétricos. Se ha terminado la costumbre de extrapolar el pasado al futuro. En la era de la aceleración y del mundo VUCA debemos cambiar o nos quedaremos descolgados como perdedores de la globalización.

Toda empresa va a tener que enfrentarse a enormes desafíos. Las empresas más grandes ya lo están haciendo. Pero no las medianas y pequeñas. Y esto es consecuencia del tamaño. Las empresas de menos de 1.000 millones de euros de facturación no suelen disponer de capacidades corporativas, que son aquellas necesarias para conseguir crecer sin que afecten a las operaciones habituales. Aquellas que toda empresa necesita cuando tiene que crecer en un entorno global, en diferentes mercados, con una cadena de valor repartida por el mundo y con personas, fábricas y clientes en diferentes geografías. Las principales capacidades corporativas son: gestión internacional, gestión de ecosistemas, capacidades financieras, tecnológicas, personas, sistemas y procesos.

Por tanto, las empresas medianas y pequeñas que no disponen de las capacidades corporativas dependen fundamentalmente de la labor de su CEO (director general, gerente, presidente o propietario) aunque cuanto mayor sea el tamaño de la empresa, mayor importancia del equipo de dirección. La mayoría de las empresas vascas se sitúan aquí. Y los desafíos clave a los que tienen que enfrentarse son los siguientes:

- Buscar nuevas oportunidades en otros mercados y revisar el modelo de negocio en el contexto de la revolución digital.
- Desarrollar modelos de crecimiento más allá del crecimiento orgánico. El tamaño de la empresa importa. Una empresa que solo sea grande en tamaño no tiene garantizada su supervivencia si no es también grande en excelencia. Pero para ser excelente hace falta tener la escala necesaria: alcanzar un tamaño crítico, distinto para cada sector de actividad, industria o nicho de mercado. Ese tamaño crítico es el que permite a la empresa desarrollar y mantener las capacidades y competencias necesarias para tener una ventaja competitiva sostenible, ya sea la gestión del canal de venta y distribución, la innovación, desarrollo de producto o el desarrollo de la marca.
- Desarrollar una organización para el siglo XXI que facilite la transformación de la empresa.
- Comprometer el talento necesario.
- Generar confianza y desarrollar la marca.

Aunque estos desafíos afectan a todas las empresas, si nos referimos a Euskadi, bien por las características de nuestra sociedad (personas) o de nuestras empresas, focalizaría los esfuerzos en:

1. El posicionamiento global de nuestras empresas (o proceso de internacionalización).
2. La necesidad de incorporar el crecimiento inorgánico para mejorar el tamaño y ser más competitivo.
3. El nuevo concepto del talento, de su importancia y de la necesidad de vincularlo.
4. La gestión multicultural, verdadero hándicap en nuestras empresas.
5. La diplomacia y su impacto en el negocio.
6. Algunos apuntes sobre la Industria 4.0, clave para el país.

7. Y, por último, las características del nuevo profesional que necesitamos para que Euskadi pueda desarrollarse exponencialmente.

Creo que estos siete puntos, bien enfocados, podrían posicionar a Euskadi como un referente en creación riqueza, empleo, reducción de la desigualdad, diversidad y apertura. A pesar de la relevancia de temas como la organización o la marca, no las abordaremos en este artículo por limitaciones de espacio.

2. ELEMENTOS CLAVE

2.1. Posicionamiento global

Para responder al título del artículo sobre cómo internacionalizar en un mundo de cambios constantes, comencemos por el proceso de posicionamiento global.

Los pasos a seguir para abordar una internacionalización son relativamente simples y muy conocidos. Los resumiría en: análisis de las capacidades competitivas, selección de países, análisis de mercado, tipo de implantación, y gestión global de la empresa.

Sencillo, ¿no? Pues no. Muy complicado. Cada una de las etapas tiene una serie de claves que hay que cumplir y el 80% de las empresas no lo hace, con la consiguiente pérdida de eficiencia. Resumo algunas claves 'destiladas' que aporten valor.

En la selección de países, para un primer acercamiento, utilizar el informe «Doing Business»[5] incorporando una serie de aspectos intangibles pero importantísimos como el nivel de corrupción, las diferencias culturales y la existencia de ecosistemas industriales y tecnológicos. Una vez realizada la selección de países y elegidos dos o tres, encargar un estudio de mercado avanzado. Esto significa que el estudio debe ser elaborado por una persona senior con informaciones de fuentes primarias (entrevistas personales a los principales grupos de interés del sector) y secundarias (datos e informes disponibles en Administración, aduanas, informes internacionales...).

Una vez decidido el país, y con la información disponible, las empresas deben decidir si ir solas o acompañadas. Y qué tipo de implantación es la más interesante para la estrategia definida: oficinas comerciales, delegación, fábrica, *Joint Venture* o Adquisición.

Y por último, la gestión global de la empresa. Los aspectos más importantes para tener éxito son: a) el expatriado (selección, gestión, retorno y la importancia de la humildad), b) la necesidad de utilizar la diplomacia corporativa, cómo protegerte en un entorno hostil y aprovechar las oportunidades, c) la gestión multicultural y cómo escapar del etnocentrismo y profundizar en la diversidad e inclusión como elemento

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[5] www.doingbusiness.org: El proyecto Doing Business proporciona una medición objetiva de las regulaciones para hacer negocios y su aplicación en 190 economías y en algunas ciudades seleccionadas en el ámbito subnacional.

de eficiencia, y d) la gestión del talento, seduciendo y vinculando al talento en la nueva complejidad.

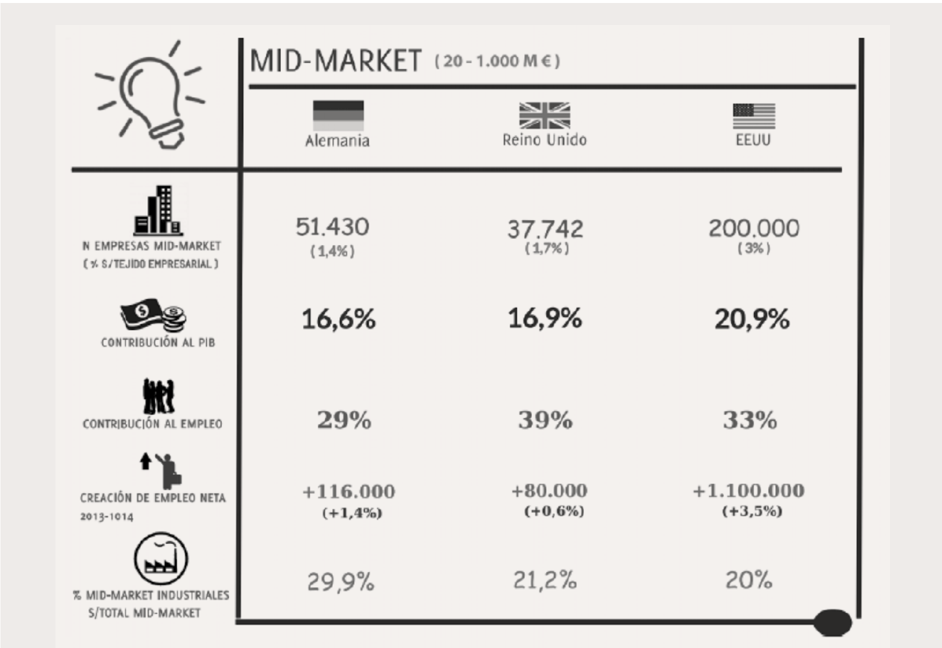
2.2. **Crecimiento inorgánico**

El crecimiento inorgánico (alianzas, *Joint Ventures* o fusiones o adquisiciones) sirve para conseguir mayor presencia, diversificación y tamaño.

Ya hemos mencionado la relevancia del tamaño y de la escala necesaria que permita alcanzar un tamaño crítico y así desarrollar y mantener las capacidades y competencias necesarias para tener una ventaja competitiva sostenible.

Para las empresas de menos de 20M€ de facturación, el tamaño es un riesgo. El resto tendrán que invertir para alcanzar la escala necesaria. Las empresas medianas pueden ser competitivas. Veamos en el siguiente gráfico[6], cortesía del Círculo de Empresarios, acerca de la importancia de las empresas del *middle market* (entre 20 y 1.000M€ de facturación). Vemos que entre el 1,4 y el 3% en número de empresas del *middle market* en UK, USA y Alemania, generan entre el 17 y el 21% del PIB y del 29 al 39% del empleo.

Gráfico nº 1. **LA IMPORTANCIA DEL MID-MARKET**



MID-MARKET (20 - 1.000 M €)	Alemania	Reino Unido	EEUU
N EMPRESAS MID-MARKET (% S/TEJIDO EMPRESARIAL)	51.430 (1,4%)	37.742 (1,7%)	200.000 (3%)
CONTRIBUCIÓN AL PIB	16,6%	16,9%	20,9%
CONTRIBUCIÓN AL EMPLEO	29%	39%	33%
CREACIÓN DE EMPLEO NETA 2013-1014	+116.000 (+1,4%)	+80.000 (+0,6%)	+1.100.000 (+3,5%)
% MID-MARKET INDUSTRIALES S/TOTAL MID-MARKET	29,9%	21,2%	20%

Fuente: https://circulodeempresarios.org/2014/11/26/la-importancia-del-mid-market/

6 Círculo de Empresarios.

Por tanto, son las empresas del *middle market* las que realmente generan riqueza en el país, por su dinamismo y por su efecto arrastre al resto de pymes o a empresas de servicios.

2.2.1. ***El crecimiento inorgánico para ganar tamaño***[7]

Vayamos pues con una de las palancas más importantes de crecimiento para nuestras empresas: las alianzas y *Joint Ventures*. Según un estudio realizado por PwC (PwC Global CEO Survey 2015[8]), entre 1.322 ejecutivos de 77 países, el 51% de ellos las señalaban como primera palanca de desarrollo o elemento clave de crecimiento. Solo el 52% de ellas son exitosas. De ellas, dos tercios terminan antes de los dos primeros años. La duración media es de 3-4 años. Las causas son variopintas, pero la principal causa de fracaso, en el 86% de los casos, es una incorrecta ejecución. Dicho así, pocas ganas quedan de embarcarse en un proyecto de semejante calibre, especialmente en el mundo internacional. Ahora bien, ¿qué pasaría si decimos que el 90% de esas *Joint Ventures* acaban siendo adquiridas por una de las partes y que alrededor del 80% de ellas tienen éxito? ¿Y si el esfuerzo y coste que hemos dedicado a la alianza es menor que el beneficio de haber conocido un nuevo mercado y su manera específica de funcionar (aduanas, administración, cultura, clientes, proveedores), especialmente en países emergentes?

Los diferentes análisis nos muestran lo siguiente: las alianzas y *Joint Ventures* son más comunes en mercados emergentes que en países maduros, también en sectores con mayor inversión en I+D. Tienen más éxito aquellos socios cuyo tamaño es similar que las empresas con tamaño diferente. Hay más posibilidades de éxito cuando los socios han tenido experiencias previas y cuando son complementarios (versus competencia directa). También funcionan mejor las alianzas y *Joint Ventures* internacionales (*Cross-Border*) que las domésticas.

Las claves para ser exitoso son: conocer muy bien nuestras 3-6 competencias básicas, elegir entre ir solos (a través de una oficina de representación, una oficina comercial, una fábrica o una adquisición) o acompañados (alianza o *Joint Venture*). Para ello, analizamos las diferencias entre las distintas alternativas: pros y contras, duración, y el análisis riesgo/beneficio. Seleccionar correctamente del socio. Muy importante: no ir con «el primero que se ofrezca», aunque sea o diga que es familia del presidente, primer ministro o rey. Ni tampoco tomar la decisión del socio en función del *feeling* (me cae bien, me fío).

Es necesario realizar un análisis profesional de posibles socios en dos aspectos: el encaje estratégico (compatibilidad de objetivos, evaluación, recursos y capacidades, complementariedad) y organizacional (cultura, estructura organizativa). A la hora de firmar el contrato, tener un buen asesoramiento, incluir aspectos como la tecnología, la marca o las patentes y la cláusula de salida, lo cual significa pactar de inicio una

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7 http://www.josuugarte.com/crecimiento-inorganico-clave-crecer/

8 PwC: 18th Annual Global CEO Survey. «A marketplace without boundaries? Responding to disruption».

posible ruptura bajo algunos supuestos (cambio de propiedad, malos resultados…). Es habitual hacerlo, pero en muchas culturas cuesta. Por último, la gobernanza. Ya hemos terminado el proceso, hemos firmado el contrato y creemos que todo está hecho. Pues no, falta la parte más complicada, la gobernanza. El día después. Para ello, necesitaremos definir la estructura de gobierno, la toma de decisión y la resolución de los conflictos, redefinir el Plan de Negocio con todo detalle, gestionar la comunicación y definir la organización interna y su cultura.

2.2.2. *Modos de crecimiento inorgánico*

En este artículo, además de los datos, me gustaría aportar la experiencia 'destilada' durante todos estos años, quisiera compartir un secreto a voces: «En los procesos de fusión y adquisición las sinergias no se cumplen, casi por definición». Existe mucha literatura sobre las causas principales. Yo señalaría las siguientes: evitar o posponer las decisiones 'duras' o 'delicadas', confusión organizativa o falta de comunicación (interna, externa) y ausencia de 'hablar un mismo lenguaje' entre las partes involucradas, no hay un control estricto de los costes ni un seguimiento adecuado de las sinergias y la infraestimación de las barreras culturales y resistencia pasiva o activa al cambio. Las consecuencias de todo lo anterior son muy claras y habituales: el valor objetivo no se alcanza, la rotación de empleados crece y la pérdida de clientes se agudiza.

A pesar de ello, si queremos crecer para alcanzar un tamaño mínimo eficiente, debemos utilizar la palanca del crecimiento inorgánico. El secreto del éxito estará en un proceso estratégico y operativo ordenado y compartir con las empresas los aprendizajes clave 'destilados' de cientos de experiencias.

2.3. **Talento**

Hasta ahora considerábamos el talento como el resultado de combinar los siguientes factores; en primer lugar, las capacidades, que incluyen tres aspectos: conocimiento (lo que sé), experiencia (lo que he hecho) y habilidades (lo que hago bien). En segundo lugar, el potencial (lo que puedo llegar a hacer). Después, la motivación (lo que me mueve al logro) y, por último, el compromiso (lo que vincula mi voluntad). Todos ellos evolucionan con la carrera profesional y tienen varias etapas como el inicio, centrado en la adquisición de conocimientos específicos, en la exploración de experiencias vinculadas al negocio y en la conciencia del potencial. La consolidación, centrada en las capacidades y habilidades como la toma de decisión, organización, desarrollo de la influencia, el auto-control (la resiliencia, la gestión de la contradicción, la gestión del estrés…), y el liderazgo, fundamentalmente, hacer que otros hagan.

Y, por último, la madurez, con un enfoque en la energía, el aprendizaje personal y la capacidad de adaptación, además del compromiso personal y de la ejemplaridad proporcionando inspiración, sentido y ayudando a otros a desarrollarse *(mentoring)*. Este es el concepto tradicional de talento.

A mi modo de ver, en la nueva complejidad, aparece un nuevo concepto del talento: la persona que es capaz de crear valor (crecimiento más rentabilidad) gracias a sus capacidades distintivas comerciales, estratégicas, tecnológicas...

Es fácilmente reconocible, sobre todo si es una nueva incorporación, porque genera un cambio concreto, medible: puede crear una narrativa potente para la empresa, combinada con una propuesta de valor ganadora integrando elementos existentes en la empresa (estrategia), o puede establecer relaciones diferentes con los clientes, accediendo a niveles de decisión más importantes (comerciales), o dominar la programación o análisis a través de capacidades estadísticas en tratamiento de datos (tecnológicas). Todo esto se traduce en un mayor valor (crecimiento más unos resultados) para la compañía.

Es más complicado verlo en personas que llevan tiempo en la empresa y con las que nos hemos acostumbrado a que hagan cosas que creemos sencillas. Este es un desafío para los responsables de personas: identificar y vincular (más que mantener) el talento interno e incorporar talento externo.

Es claro que el talento colectivo es mucho más importante que el talento individual. Pero, en este nuevo mundo, el cambio exponencial se basará en la interacción de los talentos individuales a través del ecosistema. Otra nueva paradoja a gestionar.

Si esto parece complicado, en el futuro lo va a ser mucho más por la presión competitiva. Veamos.

El talento se está polarizando. Por un lado, las grandes empresas lo atraen con la promesa de formación, aprendizaje, en un entorno tecnológico, multicultural, interdependiente. Y también las *start-ups* ofreciendo libertad, proyecto propio, sensación de independencia, sentido de pertenencia y no limitación a la creatividad.

El gran problema aparece en las empresas medianas o del *middle market* (mayoría en Euskadi) donde: no ofrecen un entorno tecnológico de primer nivel, sus relaciones interdepartamentales son escasas por su tamaño de empresa y por su funcionamiento por silos. Además, tienen más dificultades a la hora de gestionar diferentes generaciones (milennials versus '*Baby boomers*') y, en la mayoría de ellas, la media de edad es muy alta, lo que dificulta la atracción de jóvenes talentos.

Por tanto, nos encontramos ante varios desafíos: identificar y vincular talento interno, e incorporar talento externo en un entorno de cambio exponencial en un mundo VUCA y con cientos de empresas buscando lo mismo. Si, además, para la empresa mediana, las dificultades son mayores ya que deben enfrentarse al segundo problema, derivado del anterior: las empresas grandes comienzan a ser más ágiles que las medianas. Y este es un fenómeno que se está acelerando desde los últimos 3 años. A mi modo de ver provocado por:

- Desarrollo tecnológico, especialmente en conectividad. Es mucho más fácil conectarse con otros.

- Ese desarrollo, además, propicia la creación de *start-ups* dentro de las empresas grandes, lo que mejora la eficiencia.

- Las grandes empresas tienen geografías distribuidas. El idioma es el inglés. El flujo de comunicación ha mejorado radicalmente. A las pequeñas esto les cuesta mucho más.

- La propia cultura de las empresas grandes permite interacciones más rápidas y eficientes. Se crean comunidades de aprendizaje y experiencias que propician e impulsan la relación y el conocimiento.

Por tanto, solo puede existir una salida para las empresas medianas: saber seleccionar y vincular talento y gestionar el talento existente en el ecosistema, que no es otra cosa que una comunidad dinámica de agentes diversos que crean valor. Para ello, necesitarán personas capaces de diseñar, definir, mantener y animar ecosistemas que aporten a la empresa las capacidades que faltan en su organización.

2.4. **Gestión multicultural**

Esta es quizá, junto a la gestión del talento, la capacidad más importante y a la vez compleja a la que se tiene que enfrentar hoy cualquier gestor. Incluso las empresas multinacionales que facturan más de 1.000M€. Las únicas empresas capaces de gestionar este tema sin dificultades aparentes son aquellas que facturan más de 10.000M€ y que son absolutamente globales, con operaciones (producción y comercialización) en más de 75 países. Estas empresas ya son multiculturales de por sí, simplemente porque las organizaciones son matriciales y las interacciones entre países, negocios y personas es continua, por lo que cualquier persona que se incorpora, se 'multiculturaliza' por necesidad.

Esto no ocurre ni con las pequeñas ni con las medianas. Muchas de ellas familiares, enraizadas en un país, y con personas veteranas en la organización a las que les cuesta entender la nueva complejidad. En este caso (la mayoría de las empresas vascas), gestionar la diversidad cultural es el mayor desafío.

Uno de los errores más frecuentes en la gestión de las relaciones internacionales nace de la falta de humildad, seguida de la sensación de 'superioridad' que los individuos o comunidades tenemos en nuestro territorio. Esto es debido a nuestro etnocentrismo, que es la actitud o punto de vista por el que se analiza el mundo de acuerdo con los parámetros de la cultura propia y suele implicar la creencia de que el grupo étnico propio es el más importante, o que algunos o todos los aspectos de la cultura propia sean superiores a los de otras culturas. Dentro de esta ideología, los individuos juzgan a otros grupos en relación a su propia cultura o grupo particular, especialmente en lo referido al lenguaje, las costumbres, comportamientos, religión y creencias. Dichas diferencias suelen ser las que establecen la identidad cultural. Pero reconocer las diferencias no equivale a establecer jerarquías ni a justificar desigualdades.

Por ello se debe poner una atención máxima a este tema, ya que tiene un impacto brutal en las relaciones interpersonales entre culturas tan diferentes como la europea, china, norteamericana o africana. Y dentro de cada una de las culturas, existen más subculturas.

Para gestionar eficazmente personas y equipos internacionales debemos asegurarnos de tres aspectos: conocernos muy bien a nosotros mismos y, especialmente, nuestro impacto en los demás; conocer las características de los diferentes países porque, aunque cada persona es diferente, estamos 'pintados' por la sociedad en la que hemos vivido; y crear un ADN o cultura común para la nueva organización originada por una alianza, *Joint Venture*, adquisición o apertura de una filial.

A mí me gusta el enfoque del COI[9] en el que se analizan las diferentes áreas culturales:

- el Entorno: la manera en que los individuos ven y se relacionan con las personas, objetos y temas en su esfera de influencia.
- el Tiempo: la manera en que los individuos perciben la naturaleza del tiempo y su uso.
- la Acción: la manera en que los individuos forman conceptos sobre las acciones e interacciones con las personas y los objetos en su entorno.
- la Comunicación: la manera en que se expresan los individuos.
- el Espacio: la manera en que los individuos demarcan su espacio físico y psicológico.
- el Poder: la manera en que los individuos ven las relaciones con diferencias de poder.
- el Individualismo: la manera en que los individuos definen su identidad.
- la Competitividad: la manera en que se motiva a los individuos.
- la Estructura: la manera en que los individuos hacen frente al cambio, riesgo, ambigüedad e incertidumbre.
- el Pensamiento: la manera en que los individuos forman conceptos.

De las diferencias culturales podemos extraer varios aprendizajes. El primero es que todo es relativo. Somos más que unos en alguna característica y menos que otros. No somos el centro de nada. Además, el segundo aprendizaje es que no hay características mejores. Cada una tiene sus ventajas. Y el tercer aprendizaje es que una vez conoces las características de la cultura, dispones de herramientas para gestionar las situaciones.

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[9] Cultural Orientations Indicator® is a trademark of Training Management Corporation (TMC), A Berlitz Company.

Si queremos ser eficientes en la gestión de personas en el mundo internacional, además de conocernos nosotros mismos y las diferencias entre países y culturas, necesitamos crear una cultura común. Esto no quiere decir que trasladamos nuestros valores a la compañía con la que nos hemos aliado o hemos adquirido, sino que se trata de crear algo diferente y que, además, se haga conjuntamente. Para ello, en primer lugar, debemos suspender el juicio, y prepararnos a interactuar con las personas de otras culturas de manera diferente a la que hacemos con nuestra comunidad. Recordando que tratamos con personas, que vamos a compartir un proyecto común y que la diversidad es un tesoro. Necesitamos estar preparados para reinventarnos nosotros mismos (tú y tu equipo), recordad la humildad ya que estás en territorio desconocido. Vuelve a aprender a escuchar. El lenguaje es completamente diferente al que conoces. No prejuzgues. Adquiere nuevas capacidades y cuestiónate las actuales. Disfruta aprendiendo del otro. Disfruta del nuevo conocimiento.

Con estas bases, construimos un ADN común que permitiría a personas de diferentes culturas entenderse y compartir un proyecto conjunto. ¿Cómo? Definiendo la visión, misión y la estrategia; con valores y conductas comunes, con una comunicación clara, transparente, en tiempo, simple y accesible. Además, definiendo cómo será la toma de decisiones (consensual, el jefe, un comité…), el estilo de liderazgo (jerárquico, estratégico versus operacional, conservador o innovador), y promoviendo la diversidad: de todo tipo, no solo de tipo cultural, de género, de raza, generacional, tecnológica...

Si conseguimos embarcar a todas las personas en un proyecto en el que co-creamos el ADN, el éxito está asegurado. Si lo hacemos, nuestros equipos serán de alto rendimiento y el crecimiento orgánico e inorgánico (alianza o *Joint Venture* o adquisición) será exitoso. El premio es conseguir una ventaja competitiva mayúscula: integrar equipos eficientemente y conseguir incorporar y vincular talento diverso.

2.5. **Diplomacia**

La mayoría de las empresas que quieran desarrollarse internacionalmente van a necesitar algún tipo de implantación exterior: orgánica o inorgánica. Y esta inversión en capital o personas, a veces, pone en riesgo a la propia matriz. Por tanto, necesitamos asegurarnos de que pueda operar de manera eficiente. ¿Por qué digo esto? Porque en algunos países, la presencia de la Administración y de *lobbies* influyen de manera poderosa en la forma de hacer negocios y su dificultad. Por eso, es interesante articular una función dentro de la empresa que permita defender sus operaciones en un país ‘extraño’. Algunas de las grandes corporaciones ya tienen resuelto esta función, pero muchas de las empresas medianas y pequeñas no tienen ni la capacidad ni el conocimiento para gestionarlo correctamente.

En mi opinión, la diplomacia es la capacidad de tejer y desarrollar relaciones personales con otras empresas, instituciones, administración u otras personas.

Y la diplomacia corporativa es la ejercida por las corporaciones y es la capacidad de interactuar eficientemente con los diferentes grupos de interés nacional e internacional. Específicamente, la protección de las inversiones y el desarrollo del negocio.

Y la diplomacia empresarial o corporativa es diferente al *lobby*. Este último tiene como objetivo influenciar a los grupos de interés y, más en concreto, a la Administración y a la opinión pública para conseguir un objetivo concreto que, habitualmente, tiene que ver con aspectos regulatorios. Además, la actividad de *lobbying* tiene una duración determinada.

La diplomacia empresarial tiene mucho más alcance, 'ayuda' al gestor a navegar en un entorno desconocido con riesgos y oportunidades enormes e inexploradas para él, buscando protección para las inversiones realizadas y el desarrollo de negocio por disponer de una mayor información o por contactos personales. Además, se relaciona con todos los grupos de interés: clientes, proveedores, sindicatos, administración, ONGs…, gestiona subvenciones y otras ayudas, organiza reuniones con empresas públicas o privadas, especialmente SOEs (empresas estatales, muy fuertes en algunos países como China), protege a las empresas en un proceso de alianza o *Joint Venture* ante el riesgo del desconocimiento del socio, y facilita el acceso a fuentes locales de financiación. Además de, muy importante, desarrollar las relaciones personales.

Para realizar esta complicada función, el diplomático debería tener las características personales y profesionales siguientes: imagen pública, capacidad de liderazgo, capacidad relacional, capacidad de persuasión, humildad, empatía, confianza y credibilidad, visión global mundo (VUCA), comprometido con la sociedad, orientación al negocio, sensibilidad multicultural, resistencia a la frustración y visión a largo plazo.

El perfil de diplomático, que en mi experiencia ha funcionado muy bien, es el de alguien con buena imagen en el país y sin un perfil político muy definido. Por ejemplo, un experiodista de temas económicos, un exmiembro de la Administración o un profesor de Universidad con prestigio. Son perfiles que conocen muy bien la sociedad en la que viven, han tenido interacciones con casi todos los grupos de interés y no tienen perfil político que suponga 'amenazas' para nadie.

También utilizaría la red de vascos en el exterior. Una de nuestras ventajas es la identificación con nuestro territorio. En algunos países podemos encontrar vascos en posiciones importantes que estarían encantados de ayudar a las empresas o a la Administración de su país. Por ejemplo, en Latam.

La diplomacia es una de las capacidades corporativas más importantes para las empresas de tamaño mediano o pequeño en su proceso de posicionamiento internacional.

2.6. **Industria 4.0**

La Administración vasca está realizando un trabajo remarcable en esta área. Aun así, me gustaría aportar algunos elementos que creo que son claves. La mayoría de las empresas consideran que estamos en una nueva moda y que van a tener tiempo de adaptarse. A mi modesto modo de ver, esto no es así. No es una moda sino un cambio de paradigma, y el que no lo adopte dejará de existir en el mercado.

Existe una enorme confusión en las empresas a consecuencia del maremágnum de acrónimos y tecnologías en este nuevo mundo acelerado. Las razones:

- Muchísimas tecnologías del mundo IT (informática) que la empresa desconoce.
- Promesas de mejoras de eficiencia que nadie es capaz de concretarlas ni aterrizarlas.
- Miedo a inversiones importantes que no tengan eficiencia y queden obsoletas.
- Necesidad de mejorar la eficiencia ante la competencia (muchas veces de países emergentes).
- Desconfianza frente a proveedores que desconocen su cadena de valor y prometen mejoras importantes.

Pero en todo peligro hay una oportunidad. La democratización de la tecnología permite que cualquier empresa tenga acceso a las propuestas tecnológicas más avanzadas, pudiendo convertirse en líder en tecnología digital si es capaz de entender el momento y gestionar el talento y el ecosistema eficientemente. Digo esto porque no se ven empresas industriales en el B2B que estén incorporando las nuevas tecnologías con una visión holística y estratégica del IoT, del *Big Data Analysis* y con arquitecturas escalables. En lugar de eso, lo que domina son pruebas parciales con tecnologías sueltas. Consiguientemente, hay una oportunidad real para los *first movers* en esta área. Cualquier empresa vasca que sensorice, conecte, monitorice y diseñe servicios a partir de los datos, podría posicionarse como líder en tecnología digital en su sector. Y, si lo hace ahora, será capaz de incorporar y actualizar todos los nuevos desarrollos tecnológicos del mercado.

No nos centremos tanto en la eficiencia, aunque sea muy importante. Lo digo porque uno de los grandes riesgos en nuestras empresas es que los CEOs consideren que la tecnología es exclusividad del director de operaciones o del informático y dejen en sus manos decisiones que afectarán dramáticamente a su negocio. En lugar de eso, y por la importancia estratégica que tienen la tecnología y los datos para la empresa del futuro, los CEOs deberían de tratarlos como un eje central del negocio e implicarse con ello.

Esto es un cambio disruptivo. Esto va de estrategia y de cambio de modelo de negocio, que es la manera en la que monetizamos la propuesta de valor. La capacidad de predecir y configurar nuestro negocio con bases firmes se consigue teniendo datos y explotándolos a través de técnicas analíticas. Y, todas las tecnologías (*cloud*, conectividad, sensórica, ciberseguridad...) servirán para convertir el entorno empresarial en datos digitales susceptibles de ser analizados y explotados. Y, con ellos, una toma de decisiones diferente a la actual, basada en patrones que nos propongan escenarios.

La democratización de la tecnología surge cuando todas las tecnologías que se estaban desarrollando (IoT, *blockchain*, impresoras 4-D, realidad aumentada, inteligencia artificial...) maduran y convergen en el tiempo, apalancándose unas con otras, generando propuestas tecnológicas al alcance de todos, simples y con alto impacto en los resultados.

La combinación de dos tecnologías: los dispositivos inteligentes conectados y las técnicas analíticas hacen que el dato sea 'el nuevo petróleo'. Los productos inteligentes conectados están en el epicentro del tsunami en el que se halla inmersa la industria. La gran diferencia respecto al pasado radica en que ahora estos productos incorporan elementos propios de la Tecnología de la Información (IT, por sus siglas en inglés) nunca vistos. De este modo, los productos inteligentes, además de albergar los tradicionales componentes físicos, ahora cuentan con capacidad de sensorización del entorno y computación adicional con *software*. Esto los convierte en auténticos puntos neurálgicos de un sistema de sistemas. Entre estas nuevas capacidades cabe destacar la monitorización remota, control, optimización y autonomía.

Una vez digitalizados, los datos permiten con facilidad su recolección, transferencia, almacenamiento, procesamiento y análisis. Y mejora la gestión: más datos para una mayor comprensión, desaparecen los papeles, los procesos complejos normativos se simplifican y se disponen de datos en tiempo real lo que mejora la agilidad en la acción.

Y es sobre estos datos que aplicamos las técnicas analíticas. Y aquí viene el gran cambio: hasta ahora, nuestra gestión empresarial se realiza con análisis descriptivos (también llamado *business intelligence*) basados en el pasado. El conocido control de gestión. Las técnicas analíticas nos permiten saber por qué hemos obtenido una serie de resultados, si va a continuar la tendencia, y hasta qué será lo siguiente que pueda pasar. Es decir, podemos configurar una visión de futuro y una toma de decisiones mucho más fundamentada pasando de la intuición al conocimiento y la información. La identificación de patrones y la estadística sobre las oportunidades que identifiquemos cambiará la gestión empresarial y los resultados de nuestras empresas.

Es importante aclarar estos conceptos para focalizar la creación de valor que estará en el dato y su explotación a través de las técnicas analíticas. Todo el resto de tecnologías (*cloud*, ciberseguridad, conectividad, sensórica...) alrededor de la Industria 4.0 están al servicio de la mejora de la competitividad y no son un fin en sí mismo.

Los impactos se reflejarán no solo en los aspectos operativos sino también en los estratégicos. Me explico. Casi todos los consultores y empresas relacionadas con la transformación digital, ponen el foco en los beneficios de su tecnología concreta (ciberseguridad, conectividad, *big data*, *cloud*…) y en la eficiencia. Pero no solo se trata de explotar, sino también de explorar.

Dentro de los beneficios operativos están los de mejora de la eficiencia: mayor productividad, menores costes de paradas, mejor calidad o menores costes de mantenimiento. También, dentro de los beneficios operativos, tenemos el desarrollo de negocio con venta de servicios o venta de consumibles en algunos casos.

Pero no olvidemos la vertiente estratégica, que se concreta en tres aspectos clave en la gestión del dato. Primero, la disponibilidad de datos para poder migrar de modelo de negocio (imaginad un fabricante de maquinaria que vende sus máquinas y que no dispone de información exhaustiva. Puede ser atacado por otro fabricante que vende sus máquinas cobrando por pieza producida. Si el fabricante atacado no dispone de datos, o se posiciona en el mismo precio o desaparece). En segundo lugar, la posibilidad de explotar datos de su CRM (bases de datos de clientes y oportunidades) tomando decisiones en función de escenarios basados en patrones y generados por el aprendizaje automático (*machine learning*). En tercer lugar, el impacto en la planificación estratégica. Con las técnicas analíticas y la capacidad de producir una unidad a coste de producción en masa (escala), la estrategia productiva, de I+D y comercial de las empresas cambia radicalmente. ¿Necesito tener una planta productiva en otro país? ¿Todo el proceso o solamente el proceso final? Se acabaron los análisis de deslocalización o multilocalización tal como estaban concebidos hasta ahora para redefinir de manera diferente la estrategia productiva por proceso, tipo de implantación y país.

Por tanto, un auténtico tsunami. No lo menospreciemos. A corto plazo, todo el mundo ve la parte operativa. Sin embargo, lo más importante será esta parte estratégica.

La mejor forma de 'democratizar' la aplicación generalizada de la Industria 4.0 es a través de las pruebas de concepto, que no es otra cosa que simular la solución que se propone con costes competitivos. Esta prueba de concepto es gradual (se puede aplicar a una parte del proceso e ir extendiéndola en función de nuestros intereses), no invasiva (no hace falta parar las fábricas) y además no es inflacionaria (busca la ratio máxima de utilización de la capacidad instalada por lo que trata de sustituir Capex (inversión) por Opex (gasto). También señalar que son customizadas. Integran dos aspectos fundamentales. Deben integrar el conocimiento del proceso de producción y generación de valor de la empresa con el conocimiento profundo de las tecnologías de energía, automatización y control. Esta combinación es ganadora.

Dos aspectos interesantes a añadir: los miedos y la confusión son más patentes en las empresas medianas ya que las grandes disponen de más recursos y más talento y las pequeñas son más reactivas.

Pero la urgencia es total. Uno de los aprendizajes de la revolución tecnológica es la lógica del denominado *the Winner takes it all* (el primero se lo lleva todo). Y el reflejo lo tenemos en un solo motor de búsqueda (Google), una plataforma de subastas (eBay) o una plataforma de e-commerce para libros (Amazon). En otros sectores podría ocurrir lo mismo. Las pruebas de concepto son el enfoque ideal para embarcarnos en la Industria 4.0 y ser líderes tecnológicos en el sector con una inversión limitada, controlada y con un conocimiento de su rentabilidad muy certero.

2.7. **Nuevo profesional**

Nos estamos enfrentando a una complejidad creciente que dificulta la capacidad de predecir y nos obliga a configurar el futuro. En un nuevo mundo en el que la revolución tecnológica cambia dos conceptos vitales: los ecosistemas y el talento en un entorno de aceleración. Por tanto, el rol de cualquier profesional va a cambiar radicalmente. Y recordemos que la transformación de las sociedades nace de las personas. Hablamos mucho del Internet de las Cosas pero en realidad, esta nueva etapa, será la del Internet de las Personas. Si no tenemos en cuenta la importancia de las personas, cualquier iniciativa tanto empresarial como estatal acabará en fracaso. Si y solo si disponemos de profesionales con una serie de características, tendremos éxito. El bienestar y desarrollo de la sociedad dependerá más que nunca de nosotros, las personas. No lo olvidemos.

Voy a describir estas características, sin profundizar en ellas. Comenzaremos por la humildad, la más importante de todas, la base sobre la cual podremos construir el nuevo profesional. Me gusta la definición de Jonan Fernández[10]: «todas las personas somos transitorias, limitadas, imperfectas y ni lo sabemos todo, ni lo podemos todo. Sin consciencia de nuestra imperfección nos situamos fuera de la realidad. Sin la humildad de la propia limitación, el resultado es la expresión de soberbia o sentimiento de superioridad, y, por tanto, es requisito indispensable de la empatía». Y sin empatía, no hay escucha. Y sin esta, es imposible crear confianza. Y sin confianza, no hay futuro.

En segundo lugar, debe poseer las capacidades para generar confianza y, en concreto, conocer las cuatro claves para conseguirlo (autenticidad, coherencia, aceptación-respeto, y apertura).

En tercer lugar, deberá ser generoso, no solo compartiendo información sino transformando a sus equipos, invirtiendo muchísimo tiempo en ellos.

En cuarto lugar, será consciente de la importancia de la comunicación directa. Funciona en todas las culturas.

En quinto lugar, reconocerá las diferencias entre cooperar, colaborar y coordinar a la hora de conseguir la eficiencia.

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[10] Jonan Fernandez: «Vivir y convivir: cuatro aprendizajes básicos». Ed. Alianza Editorial.

Una vez conocida la base necesaria, debe disponer de la capacidad de configurar una visión, compartirla, discutirla y consensuarla. Consiguiendo que las personas quieran ser partícipes, multiplicando el sentido de pertenencia y dando una motivación y una razón de ser al trabajo diario, que hará que los equipos redoblen los esfuerzos siendo felices en el trabajo y mejorando la eficiencia en la empresa.

En séptimo lugar, necesitará conocer las claves de la diplomacia, la influencia y el acceso al C-level para conseguir ser eficiente en diferentes culturas y grupos de interés.

En octavo lugar, será capaz de gestionar el talento. La exigencia *porque sí*, *el ordeno y mando* se ha terminado. El nuevo talento capaz de crear valor con sus características personales, podrá moverse donde quiera y lo hará si se enfrenta a ejecutivos como los actuales, para los que el resultado a corto prima por encima de todo. La época de los objetivos ambiciosos *porque lo digo yo*, se han acabado. El nuevo profesional, para retener el talento y sacar lo mejor de él y del equipo debe cambiar absolutamente. Profesional y personalmente.

En noveno lugar, otro de los temas decisivos. Deberá dominar las claves de la gestión multicultural. En tres niveles. Conocerse bien él mismo y el impacto que genera en los demás. Conocer las características culturales de otras personas y países. Y, por último, ser capaz de liderar la implantación de un ADN común con personas de otras culturas y países.

Y para finalizar, este conocimiento de sí mismo y de la gestión multicultural, favorecerá la gestión generacional, otra de las características necesarias para el nuevo profesional.

Aquellas organizaciones que sean capaces de disponer de personas con estas características, tienen casi asegurado el éxito en el nuevo mundo. Simplemente, se enfrentarán a otras organizaciones incapaces de solucionar los problemas dentro de sus estructuras nacionales e internacionales, perdiendo un tiempo precioso en la era de la aceleración.

3. CONCLUSIONES

Sostengo, a diferencia de muchos expertos, que los Estados-nación o las regiones disponemos de herramientas para ser protagonistas en la nueva complejidad y el mundo VUCA, que es el resultado de la combinación de la globalización (cuarta ola, interdependencia, geopolítica) y de la revolución tecnológica (plataformas, GAFA+M, democratización de la tecnología, industria 4.0 y aceleración).

Pero para ello, tendremos que consensuar una serie de realidades que no nos gusta ver. El mundo es como es y no como queremos que sea.

La primera realidad es la complejidad de comprensión a la que nos enfrentamos: incertidumbre y volatilidad en este nuevo mundo hipercompetitivo, globalizado y con tecnologías disruptivas madurando. Solo podremos abordarla con un conocimiento profundo de la globalización, la geopolítica, la digitalización y las claves de la competitividad.

La segunda realidad es que Euskadi no está bien posicionada en este nuevo mundo. Las características propias del país y su estructura no son las más adecuadas: tamaño de empresas, nivel tecnológico, posicionamiento en emergentes, apertura al crecimiento inorgánico...

La tercera realidad es que tenemos capacidades para hacerlo. Tenemos un tejido industrial potentísimo, una colaboración público-privada excelente, empresas líderes en muchos sectores, flexibilidad y capacidad de adaptación y experiencia en crecimiento económico.

La cuarta realidad es que las empresas, salvo las grandes multinacionales, no pueden recorrer solas este camino. Las cientos de pymes no podrán abordar este nuevo mundo sin el apoyo de la Administración y de las personas, que necesitaremos formarnos más rápidamente en tecnología, multiculturalidad e idiomas para poder sobrevivir y ayudar al país (a través de las empresas fundamentalmente) a desarrollarse. Este tema es relevante. Sin capacidades corporativas, las empresas pequeñas y medianas tendrán dificultades en actualizar sus competencias ante las diferentes oleadas de disrupción tecnológica que están por venir. Además, podrán ser adquiridas por empresas extranjeras de mayor tamaño con sede en otras geografías y sin tanto arraigo local.

Además, nos enfrentaremos a un cambio de paradigma en la relación empresa-trabajador. Deberíamos proyectarnos a un futuro cercano en que los agentes económicos y sociales compartan con total transparencia los desafíos a los que se enfrentan. Y digo ambos porque unos sin otros no podremos sobrevivir en las condiciones que nos gustaría.

El rol de la Administración es clave: las pequeñas y medianas empresas no disponen de las herramientas necesarias (capacidades corporativas) para conquistar nuevos mercados y clientes, enfrentar las disrupciones tecnológicas, vincular talento, crecer inorgánicamente y gestionar organizaciones del siglo XXI.

Y la mayor transformación nos llega a nosotros, las personas, que somos el mayor motor de cambio. Necesitaremos hacerlo profundamente: enormes dosis de humildad, de empatía, de aceptar la diversidad de todo tipo, de valentía, de olvidarnos de nuestro etnocentrismo y entender otras culturas y de cooperar con un objetivo último: crear riqueza, empleo y reducir la desigualdad. En este sentido, necesitaremos hacer un esfuerzo extra de humildad y olvidarnos de «en el pasado ya lo hicimos», «es una moda» o «esto no se puede caer». Estamos en un entorno VUCA bombardeado por disrupciones tecnológicas a un ritmo de cambio nunca visto.

Me gustaría terminar con una llamada a la apertura. Con una frase de Dominique Moisi[11]: «aprender de las emociones de otras culturas se convertirá en un asunto crucial. El Otro cada vez será más importante como parte de nuestras sociedades multiculturales. Las fronteras emocionales del mundo se han vuelto tan relevantes como las fronteras geográficas. La comprensión cultural e histórica de las diferencias y semejanzas del Otro es la base esencial de un mundo más tolerante».

Un desafío colosal. Con la suerte de que tenemos herramientas y capacidades para aprovecharlo. Eso sí, seamos proactivos. Nos quedan 5 años para sentar las bases del bienestar de nuestro futuro, el de nuestros hijos y contribuir a un mundo más sostenible.

[11] Dominique Moïsi: «Geopolítica de las emociones». Ed. Norma.

Global niche market leaders in emerging Asia and the necessity to become market insiders

In the present article we will focus on the implications that the Emerging Asia growth trend implies for medium-sized companies from Germany that are market leaders or a top 3 supplier in their respective niche or market segment (aka 'Global Niche Market Leaders'). We find that only a small portion of the companies considered have developed insidership on the Asian continent in general and in China in particular. We contend that this can put a mortgage on the strength of their global market position in the mid-term. We argue that it is recommendable to adopt a more assertive approach towards the Asian/Chinese market, implying a stronger emphasis on other foreign entry modes than export and a redoubling of R&D assets between -in this case- a German *Standort* and an Asian one. Similarly, we conclude that succeeding in Asia is becoming less and less a question of following a trickling up strategy (positioning oneself first in lower-end market segments and moving up gradually) as the continent is acquiring a lead market status for several high-tech industries.

En este artículo nos centramos en las implicaciones que el crecimiento de Asia Emergente tiene en empresas de tamaño medio de Alemania, líderes o que se encuentran posicionadas entre los tres primeros proveedores en sus respectivos nichos o segmentos de mercado (también conocidas como 'Lideres de Nicho en Mercados Globales'). Encontramos que, en general, solo una pequeña parte de estas empresas ha tenido en algún momento relaciones mercantiles con el continente asiático, con China en particular, y sostenemos que esto puede hipotecar su posición en el mercado global a medio plazo. Para ello, consideramos recomendable adoptar un planteamiento más asertivo hacia el mercado asiático/chino, poniendo mayor énfasis en otros modos de acceso a mercados extranjeros que el basado en las exportaciones, y redoblar los activos de I+D entre -en este caso- las empresas alemanas y las asiáticas. Concluimos que tener éxito en el mercado asiático es, cada vez menos, una cuestión de continuar con la estrategia de 'goteo hacia arriba' (posicionándose primero en los segmentos inferiores para subir gradualmente), debido a la posición de liderazgo que, para las industrias de alta tecnología, tiene en la actualidad dicho continente.

Artikulu honetan suspertzen ari den Asiako hazkundeak Alemaniako tamaina ertaineko enpresetan dituen ondorioetan jartzen dugu arreta. Enpresa horiek liderrak dira edo beraien merkatuko-nitxoko edo merkatu-segmentuko lehen hiru hornitzaileen artean kokatuta daude («nitxoko liderrak Merkatu globaletan»). Ikusi dugunez, enpresa horietatik gutxi batzuek baino ez dute garatu lehen eskuko informazioaren trafikoa kontzeptua Asian, orokorrean, eta bereziki, Txinan. Uste dugu horrek beren merkatu globaleko posizioa hipotekatu dezakeela epe ertain batean eta uste dugu gomendagarria dela asiar/txinatar merkatuarekiko planteamendu asertiboagoa hartzea, esportazioetan eta –kasu honetan– kokaleku alemaniar eta txinatar baten arteko I+G aktiboak handitzean oinarritzen ez den atzerriko merkatuetara sartzeko beste era batzuetan indar gehiago jarrita. Era berean, Asiako merkatuan arrakasta izatea, «goranzko tanta-jario» deritzon estrategia (lehendabizi beheko segmentuetan posizioa hartzea gorantza apurka-apurka joateko) jarraitzean gero eta gutxiago datza, kontinentea teknologia handiko industria batzuentzako merkatuko lidergoa lortzen ari den heinean.

Bernd Venohr*
Management Consultant
Bart Kamp
ORKESTRA – Instituto Vasco de Competitividad

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1. INTRODUCTION

For Western companies that aspire to be a worldwide leader in their target markets, the rise and opening up of emerging markets have two broad-based implications.

On the one hand, it requires these companies to develop a foothold in new market as they open up (by offering adequate value propositions for the potential customers on these markets).

On the other hand, it creates a need for them to demonstrate their ability to compete with new (global) contenders that arise from those markets.

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Particularly Emerging Asia with three strong sub-regions (Greater China, ASEAN and potentially India)[1] is manifesting itself as a region where expanding market opportunities unfold, and where contenders for global market domination emerge, including in high-tech industries like mobile phones and electric cars. Economic growth across these sub-regions has been buoyant over the past years, with average annual economic growth rates of respectively 9.4%, 7.4% and 5.2% for the Chinese, Indian and ASEAN sub-regions between 2005 and 2016 (own calculations based on IMF and WEF). Moreover, if one zooms in on new, digital, economy market segments like e-commerce payments, it turns out that between 2005 and 2016 China's share in the total value of e-commerce transactions rose from less than 1% to over 40% (MGI, 2017).

The outcome of the former trends is that Emerging Asia is becoming a very important place-to-be for Western companies that have global leadership aspirations. At present, for most industry sectors; particularly China is turning into the largest single market area.

Moreover, the thought that the Asian market can be conquered with defeatured or last season products of Western origin (cfr. the IPLC model, see Vernon, 1966) or via reverse innovation thinking and trickling up strategies (see e.g. Govindarajan and Ramamurti, 2011; Ramamurti, 2012) has today only partial applicability. On the one hand, it may still be relevant for e.g. the Indian and Indonesian (or broader ASEAN) market. On the other hand, in the case of China it seems to lose ground, as it is turning increasingly into a hub for innovation and for the launch of new product generations in its own right (German Chamber of Commerce in China 2017), has turned.

Given the economic growth of the region and the modernity of customer preferences, it is clear that global product-market strategies will have to factor in the preferences of customer groups from Emerging Asia. Alternatively -due to the sheer size of these markets and their possible local specificities, they increasingly legitimize a targeted and locally responsive strategy in their own right. Similarly, to be able to compete on a level playing field basis with competitors from Emerging Asia and to act from close range, it is also becoming indicated to be on-site.

In other words, attaining an 'insider status' becomes an increasingly important issue for companies that come from outside Emerging Asia -or China in particular. Achieving 'insidership' on foreign ground (developing localized operations in sales, marketing, logistics, manufacturing, and R&D) is challenging due to the financial and management resources required. Particularly for mid-sized companies this (sup)poses unique challenges. In the present article we will focus on

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[1] According to present classifications from e.g IMF, China is still considered as a part of Emerging Asia. Hence, we stick to that labelling in this paper, but readers should keep in mind that certain market segments in China are developing very fast and have the potential to function as global lead markets already today.

the implications that the Emerging Asia growth trend implies for medium-sized companies that are market leaders or a top 3 supplier in their respective niche or market segment. Since a larger number of these companies are based in Germany (Simon, 1996, 2009), we will focus on Germany-based companies with a 'Hidden Champion' profile, referring to them as 'Global Niche Market Leaders' (hereafter also: GNMLs).

The rest of the paper is structured as follows. First, we conceptualize the terms «GNMLs» and «market insidership». After describing the methods and sources that were used for our empirical research, we assess to what extent a group of German-headquartered GNMLs has attained a status of market insiders in some of the main markets in Emerging Asia. These are followed by a discussion of the findings. We finish by outlining implications, limitations and suggestions for further research.

2. THEORIZING GLOBAL NICHE MARKET LEADERS AND MARKET INSIDERSHIP

While the present paper draws upon empirical data, we also believe that it is indicated to reflect in a constructive manner on the concept of «Hidden Champion» and how to operationalize it.

The term «Hidden Champion» was coined by Theodore Levitt in a conversation with Hermann Simon about the reasons behind Germany's export success. Consequently, Simon launched a series of works on this phenomenon (1990, 1996, 2009, 2012) in which he described the following criteria that companies must meet to be considered a «Hidden Champion» (Simon 1996, p. 5-6; Simon 2009, p. 15):

- Number one or two (alternatively: 'top three') in the world market, or number one on the European market (alternatively: 'the main continent that a company is based on), determined by market share.
- Revenue below $1 billion (raised to 4 or 5 billion USD in later publications)[2].
- Low public visibility and awareness.

While both the term and the research line that Simon put on track have been very appealing, it is also true that they have posed researchers wanting to follow in his tradition with difficulties. In fact, this may have been one of the reasons why it has become more popular among practitioners than scientists (Landau, Karna and Taube, 2016). For an overview of analytical problems that the Hidden Champions 'framework' causes to academic researchers, see e.g. Venohr and Meyer (2007), Venohr (2010) and Boga (2012).

[2] https://hbr.org/2017/05/why-germany-still-has-so-many-middle-class-manufacturing-jobs

In line with the former, it seems to us that the term «Hidden Champion» in itself may form a key hindrance for pursuing rigorous research. Particularly, the 'hiddenness' of these firms is a relative and probably fading aspect behind their performance. Originally, Simon stated that many Hidden Champions actually preferred to stay unknown, because they did not want to alert actual and potential competitors (Simon 1996, p. 3-5). More than 20 years later, though, many companies that were labelled 'Hidden Champion' have grown much in size and cannot remain unknown very easily. Moreover, over time the internet has increased the visibility of businesses significantly, e.g. through company review sites like «Glassdoor» or «kununu». In addition, new financial reporting and disclosure regulations require even privately-owned German companies to fully disclose their financial results. Similarly, many B2B companies form an integrated part of global value chains and must be very transparent *vis-à-vis* their customers and in many cases the general public as well (sustainability reports, ecological footprint and other issues of societal concern).

Finally, and perhaps most importantly, given the severe shortages in qualified labor that these companies face (particularly the many cases that are located in rural areas) it has become rather costly for them to hide since high-potential employees want to have information about their potential employers.[3]

In other words, while the term is very eye-catching towards the general media, from an analytical perspective it is deemed that terminological progress must be made to come to insightful research.

2.1. **Coming to an eclectic framework for GNMLs**

As indicated previously, we propose to use the term 'Global Niche Market Leaders' since it seems to us that it lends itself better for operationalization and methodological research purposes, and since it expresses better «what are we actually talking about». when we refer to companies that act in upstream segments of B2B markets in which they hold a leading position on a global scale (which is essentially what 'Hidden Champions' stand for).

In the following we will attempt to make the different facets of the construct GNML clearer.

Product-market combination

The firms under consideration act in clearly defined niche markets that do not draw a lot of attention from the public media and big consumer public. The pursuit of niche market positioning becomes viable when customer needs vary,

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3 See e.g. http://www.markenartikel-magazin.de/no_cache/unternehmen-marken/artikel/details/1009636-employer-branding-hidden-champions-mit-vermarktungsproblem/

and companies can create a competitive advantage by offering differentiated products and services, appealing to a particular segment of the market. Kröger *et al.* (2006) argue that going after niche audiences is typical for companies that operate in highly differentiated B2B markets, whereas it is more unusual to observe in B2C markets, where customer profiles tend to be more homogeneous globally. Accordingly, many B2B markets consist of numerous submarkets or market segments that differ in a number of characteristics. The companies then usually try to define an attractive segment for themselves, e.g. a specific customer group with similar needs. Consequently, and since they do not have the resources to fight head-to-head battles against large competitors, they seek out niches that are either unknown to large competitors or too small to attract them (Clifford and Cavanagh, 1985).

The target customer group is then served with specific products and services tailored to its needs, while the putting in place of a unique value chain -optimized for the target audience and driven by the unique competence set of the niche company in question- serves as an entry barrier *vis-à-vis* larger competitors. The former implies that the focus for spotting GNMLs should be placed upon, especially upstream, B2B markets where products in the form of components or machinery are traded.

Global Market leadership

In the niches that GNMLs attend, the companies in question should play a leading role from a market share perspective, and form part of the global top 3 in that regard. Typically, these companies compete on value for the customer instead of price and they try to meet the customer needs in a distinctive way through value innovation tactics (Clifford and Cavanagh, 1985; Kim and Mauborgne, 1997).

Occupying a vanguard position, particularly in technology can underpin such market leadership, but cannot substitute for it and should not be a ground to consider a specific company to be a global market leader.

Global market leadership always implies the presence of current, past or potential competitors against which GNMLs must prevail. An exception here can be formed by pioneers that command wholly new markets, in which no competitors exist yet. When dealing with internationally relevant products, these cases are rare and tend to be only temporary, since customers do not want to be dependent on one supplier and the supply side typically amplifies once demand comes on steam.

Take note that the reliability with which market shares can be established may be problematic, since it frequently depends on self-assessments by the firms under consideration. Similarly, market share in a specific niche on behalf of a particular company is not equal to the overall sales figure of a company in question, for only seldomly companies get their entire revenues from a single product and/or a single market (segment). Hence the degree of diversification of a company must be factored in.

International footprint

Assuming that GNMLs hold a leadership position in international markets, we posit that a minimum share of a GNML's turnover comes from sales abroad. To set a minimum threshold of 50% seems fair (Kamp, 2017). That way it can be avoided that companies that dominate specific niche markets, which are essentially national or even regional, are categorized as international niche market leaders (Venohr, 2010).

Whether this 50% threshold is reached via export from the home country of the firm (+ international sales and service operations) or by means of fully integrated foreign operations (including manufacturing and R+D in addition to sales and services) is of secondary importance. However, it can be expected that over time the companies in question build up substantial operations abroad.[4]

Company size

While many GNMLs maintain an SME mentality and act in narrowly defined niches, the fact that they have managed to internationalize broadly implies that a considerable part of them employ more than 250 persons. This bites with the generally accepted definition of the European Institutions on what an SME is and means -on the one hand- that the lower limit for «GNML territory» should not be set too low. On the other hand, if we assume that GNMLs are niche players and act primarily in smaller segments of larger markets; then it makes little sense to posit that these firms can invoice up to 5 billion euros a year.

As an intermediate solution we propose connecting to the framework of the «middle market» and put forward that GNMLs ought to be sought among the range of firms with an annual turnover between 20-1.000 million euros a year.[5]

In addition, and to avoid that the importance of a particular product-market combination for a GNML is of limited importance (see also the earlier point on «diversification"), we postulate that the sales in the market in question should at least represent 10 million euros in turnover per year for the company under scrutiny.[6]

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[4] Which is also in line with the insiderisation thesis of the present paper.

[5] GE Capital and Warwick Business School (2013), The Mighty Middle: Growth and opportunity in the UK's mid-market, London.

[6] That way we ensure that we are focusing on companies that are specialized in a particular product-market combination and that we are not dealing generalist for whom a specific market segment is just one of out many.

Market volume and global character of the market

To ensure that we are not dealing with residual (niche) markets, we opine that a minimum threshold should apply as well to the overall size of the global market niche served by companies. As a tentative rule we forward that the annual market value should at least be 50 million for a well-defined product category.

In addition, we argue that this market value should at least be based on significant business in 3 different continents across the globe to warrant the global character of the market in question.

Admittedly, this criterion may be smoothened in the case of new product markets for which specific countries or a single continent act initially as lead market(s). In such cases, the early stage demand will be geographically concentrated. By all means, also in these cases, it should be foreseeable that a worldwide market will unlock and that these products will eventually tap into a global pocket of demand.

2.2. **Market insidership**

In line with the idea that GNMLs should not *per sé* be considered as «hidden» actors who move in concealed ways, we also argue that conquering prominent market positions on foreign ground can only be achieved to a limited extent by operating from behind the fence.

While this has arguably always been the case, in the current context of globalization it is becoming increasingly imperative to go beyond the practice of exporting to establish and maintain market leadership across multiple continents. The practice on behalf of GNMLs to engage in Foreign Direct Investment and developing a physical overseas presence was perhaps underexposed or underestimated in the early works on Hidden Champions as they emphasized more the link between these companies and the export success story and the positive foreign trade balance of countries like Germany (Simon, 1992, 1996, 1996b). However, over the past decade the FDI propensity of GNMLs has been brought more clearly to the front. I.e., Venohr and Meyer (2007) contend that GNMLs count with significant overseas manufacturing presence and prefer greenfield investments as foreign entry mode. Simon (2009), on his part, concluded that owning foreign manufacturing subsidiaries is a very typical trait among Hidden Champions, whereas Witt (2015) showed how GNMLs deploy substantial foreign direct investment in addition to conducting mere foreign trade activity.

Apart from the choice between low and high equity entry modes (mainly: exporting or FDI), there is the question of opting for wholly owned subsidiaries abroad or making use of partnerships with local allies. In this regard, most literature on Hidden Champions states that these firms are clearly in favor of going-it-alone.

Among others, Simon (2009), Witt (2010) and Witt and Carr (2013) point at this preference for moving abroad alone and to avoid partnerships.

Evidently, from the perspective of developing insidership in foreign places going-it-alone or joining forces with local partners can make a big difference, both in terms of the level and speed with which local embeddedness can be established.

From a theoretical perspective, the notion of' building up insidership in multiple places to lead a market across the globe' can be underpinned by considering the following schools of thought.

Interpretation of business internationalization as a process or stages model

According to Johanson and Vahlne (2009) internationalizing companies typically go through stages starting of with export operations to neighbouring countries. Over time, these companies acquire more knowledge about conducting international business and about more distant markets (also in a cultural sense). Hence, they dare to commit more resources and higher equity entry modes to foreign markets. Similarly, they evolve from merely selling abroad to manufacturing and developing products on off-shore locations.

As such, this internationalization process model aligns very well with the spirit of market leaders that we are addressing in the present paper. For these are typically longstanding and resilient companies that grow in a gradual manner; companies that develop and expand their market presence in a well thought through manner, without rushing things necessarily.

Both the internationalization process model and the way that the growth path of GNMLs are typically presented,[7] indicate that there is an organizational growth rationale that induces firms to amplify their international business behaviour, both in terms of the geographical markets they address and the entry modes they deploy.

Johanson and Vahlne (2009) consider an internationalization process (or foreign entry process) to be accomplished when a firm reaches the status of insidership in a foreign business network. A practical way of interpreting insidership comes from Hilmersson (2013), who considers that insidership is attained when business relationships with relevant actor(s) in a specific territory have reached a long-term character.

In line with the former ideas of creating foreign subsidiaries that take on functions with regard to product portfolio development; foreign subsidiaries can

[7] Slow but steady and organic growth instead of (explosive) «speedbred chicken» croissance by means of take-overs of peers or absorbing upstream or downstream actors of the value chains in which they act (Simon 1996, p. 11; Venohr and Meyer 2007, p. 15).

be expected to become embedded in the local environment (Vahlne *et al.*, 2012). This typically involves taking up R&D activities (Forsgren *et al.*, 2005; Meyer, Mudambi, and Narula, 2011) and allowing foreign subsidiaries to develop entrepreneurial activities (Birkinshaw, 1997; Vahlne *et al.*, 2012).

Diversity in markets qua demand characteristics and idiosyncrasy of buyer-supplier networks

Next to the fact that the maturing of internationalizing firms leads them to consider building up a more prominent presence in foreign markets (organizational growth rationale), there can also be a market pull rationale that induces firms to develop a particular footprint in foreign markets.

Despite the globalization of business, it is incorrect to assume that customer preferences are the same everywhere and that the chances to attain market share on a particular continent are equal for those that count and those that do not count with local presence. In particular *vis-à-vis* markets that count with high dynamism or lead market characteristics for specific product groups,[8] it can be detrimental to keep an arm's length relationship and supply them from a distance. Moreover, in line with findings from Rugman and Verbeke (2004) and Oh and Rugman (2014) still today there are many industries whose buyer-supplier networks are organized on a regional or continent-per-continent basis. This implies particularly for companies who are active in B2B circuits that getting a foothold outside their continent of origin is imperative. More and more, getting such a foothold means going beyond recurrent trade relationships with specific partners in the region, and instead requires the development of multiple business functions in the region in question, like R&D (cfr. embedded subsidiaries of multinational enterprises, Forsgren *et al.*, 2005).

Altogether, it seems that companies with activities on site have a far better sense of market-specific customer requirements, and can tailor products and services to the needs and specificities of target markets abroad. In addition, such presence forms an essential source of innovation and offers attractive revenue potential in product-related services.

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[8] When connecting the concept of «niche» with «lead market» we also realize that companies can face demand that evolves over time and which does not have to represent the same volume in different places or continents. I.e., what starts out as a niche (in a lead market) may turn into something big over time in the place/market where demand took off, whereas the evolution of demand in other places may catch up but with a time lag. As such, niches can also be regional rather than global. Similarly, what is a niche market in one place at T1, may be a mass market elsewhere at that point in time. Consequently, besides considering regional differences, GNMLs need to be aware that niche markets may become mass markets in the course of time. As a consequence, GNMLs need to evaluate and (re)define the appropriate niches for them, and be open to niche adaptations. As an alternative to operating in a niche, they may opt for leaving the niche, but then they must fully understand and meet the requirements of operating in mass markets.

2.3. Conceptual model and test-setting to assess the degree of market insidership among GMNLs

Framework for analysis

While there are several well-known frameworks to analyze and describe the internationalization patterns of companies e.g. the previously mentioned IPM or Uppsala model), we propose to use an adapted and significantly extended version of Ohmae's Five-Stage Model (Ohmae, 1990). Principally because the model is considered to be suitable for GNML-type of firms since it applies very well to one-product companies or other kind of product specialists.

Ohmae (1990) argues that in order to compete successfully on global markets, a company needs to increasingly transfer key activities and competencies to its main foreign markets and ultimately become fully globalized. Evidently, there is organizational choice involved in such processes and also the sectorial context in which a company operates will co-determine what the optimal stage for internationalization will be for a firm. In addition, the cultural/national background of companies will influence their international strategies. For instance, German companies that sell products at the cutting edge of technology, rely upon close cooperation between engineers and manufacturing workers when coordinating different phases of production from design to market. Physical proximity of all key functions, a highly skilled and experienced employee base, home-based intellectual property management as well as trusted supplier networks are all key factors to success. Therefore, German companies -instead of splitting their value chains and performing activities in locations where the required skills and materials are available at lowest cost- still favor an integrated value chain including a tightly-knit supplier base.

This approach is very different from the approach preferred by many US manufacturing companies, who outsource and offshore manufacturing operations to Asian contract manufacturers. German companies rely much more upon integrated value chains and rather pursue a dual strategy in globalization – slowly building one or more international hubs over time with the objective of replicating their German home base (thus creating a «second home»), while still keeping significant manufacturing as well as product definition, R&D, design and logistics functions at their main German home base.

Hence, and referring to the five stages model, for German firms attaining stage 4 is kind of the highest aspiration level, whereas US firms go much more after the stage 5 level. One way or another, both stages suppose a considerable level of insidership implying among others the maintenance abroad of comparable manufacturing and R&D facilities to those in the home country.

Research context

Given that Germany is considered to be the home to many GMNLs and the Asian continent has developed into a market place that internationally active companies should take into their stride (Buse and Tiwari, 2014; Landau *et al.*, 2016), we argue that assessing the extent with which Germany-headquartered GMNLs are developing market insidership on the Asian continent forms an interesting test case. Hence, in the following we report on the way that such an assessment has been undertaken and the findings it led to.

3. METHODS AND SOURCES

For the empirical part of this paper the main source of information is formed by a study that was aimed at understanding how Germany-headquartered firms could best capture growth opportunities in Asia, with the target group of this study being German GNMLs. The study was commissioned by the Singapore Economic Development Board (EDB), was supported by the Singaporean-German Chamber of Industry and Commerce (SGC), the German Centre for Industry and Trade Singapore, Future Ready Singapore and the German AHKs in other parts of Asia, and was carried out under the guidance of the lead author of the present paper.

Figure 1. **FIVE STAGE COMPANY GLOBALIZATION MODEL**

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
Main thrust	Export only	Establish local marketing sales and service operations [subsidiaries]	Add local manufacturing	Achieve insiderisation by adding R&D	Achieve complete globalisation
Value chain split (headquarters / region)	Fully based in home country; all or part of local marketing, sales, distribution and on-site servicing outsourced to distributor/local agent, if necessary	Own representative office or branch with local sales (application engineering), service and marketing operations	Manufacturing operation is added (component production and/or final assembly)	Firm has 'cloned' itself: performs almost the full range value creating activities in the region. It will also locate important infrastructural activities such as for instance IT, HR, finance in the region.	Worldwide network structure: local operations are 'centres of excellence' and fully integrated; people, raw material, technology and capital are sourced where they are best and cheapest; develop and manufacture products wherever they find the best resource base and sell globally
Governance (split of decision making power between global headquarters and region)	All management decisions are taken in the home country	Certain decisions are delegated from the home country headquarter to the country subsidiaries like distributor management, perhaps product portfolio or minor adaptation decisions, and recruitment of local staff	Additional responsibilities regarding the localisation of procurement and logistics and of local outsourcing of certain manufacturing steps are delegated to regional subsidiaries	Regional management will often control important decisions on investment, product and pricing strategy and core staff	Power decentralised; global mindset; 'virtual headquarters' structure; board members are placed in key regions (large markets; resource hubs)

Source: Bruche and Venohr (2015) based on Ohmae (1990) and Ping Bu Loke, former Centre Director Europe, EDB Singapore (unpublished presentation material).

The EDB-commissioned study relied on the following methods: an online survey and management interviews with owners, CEOs or Board Members of GNMLs operating in Asia. The online survey was distributed among Singapore-based executives and Germany-based executives overseeing Asia operations. The survey questions focused on three themes: general company information; current company footprint in Asia; plans for expansion in Asia.

A total of 597 company executives were invited to participate in the online survey (345 Singapore-based; 252 Germany-based). Care was taken that only one executive from each company was approached. In total we received 81 valid responses,[9] of which two thirds came from Germany-based executives and one third from Singapore-based executives.[10] Reviewing the answers there were no significant differences in the results between these two sub-groups. Of the 81 valid contributions, only 6 corresponded to firms with an annual turnover of more than 1,000 million euros a year. As such, over 90% of the responses came from middle market firms as proposed under the GNML framework in section 2-1.[11]

The management interviews were conducted face-to-face and aimed at refining and deepening the insights gained through the quantitative online survey. A total of 22 senior executives with successful business operations in Asia were interviewed.[12] The interviews lasted between one and two and a half hours and were conducted in person at the companies' headquarters in Germany. The interviews were semi-structured with an outline of about 15 questions. Certain company executives were interviewed a second time, mostly over the phone and in writing.

The harvest from the survey and the personal interviews was subsequently analyzed through a comprehensive approach consisting of quantitative and qualitative research incorporating substantial amounts of external data sources as well.

Since the field work for the study was carried out in 2015, we first present the results from it *as is* under chapter 4 (Findings), but analyze the findings afterwards also in the light of current evolutions on the Asian market under chapter 5 (Discussion).

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[9] The responding companies operate as suppliers in a variety of B2B markets, ranging from automotive over machinery, domestic appliances, capital goods, pharmaceutical and medical apparatuses, to IT and automation devices.

[10] To profile the respondents further: roughly 15% of the Germany-based respondents had personal expatriate experience in Asia and 100% of the Singapore-based respondents had personal expatriate experience in Asia.

[11] Moreover, the lion share of these firms had a family business character.

[12] Of the 22 firms to which the interviewees pertained, 20 were family-owned (thereof 3 were listed on the stock market, albeit under family control). Furthermore, there was one company that operated as a foundation and another that is a subsidiary of a large publicly listed corporation.

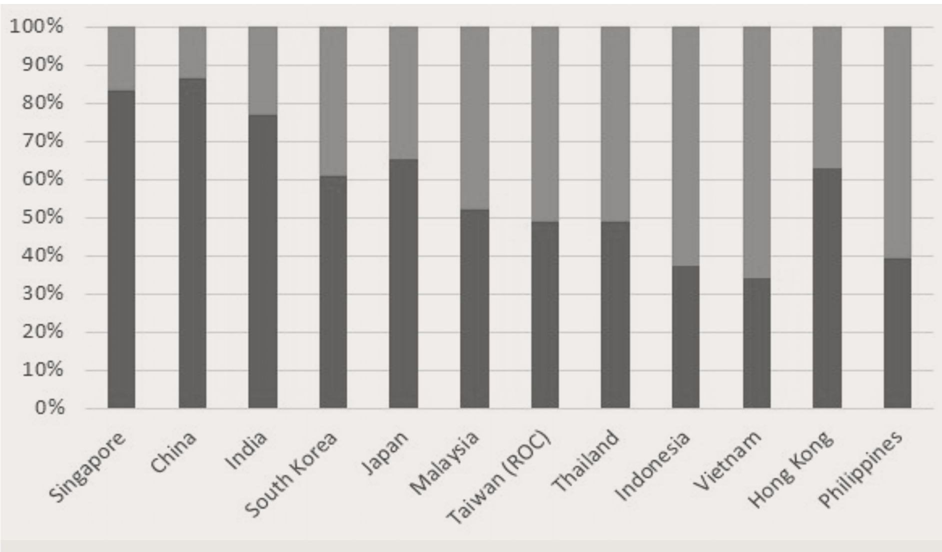
4. FINDINGS

4.1. The growing economic importance of the Asian market for GNMLs

The survey results demonstrate clearly that Asia is becoming an increasingly important business arena for the respondents. At the time of the survey Asia accounted for about 20% of the global revenues of the research sample. Moreover, in the following 3 years more than half of the companies expected double digit annual revenue growth from their Asian operations. This implies that for many of them, Asia had become the most important continent for sales after Europe. Most firms had been active in Asia since the mid to late 1990s or early 2000s, meaning that on average they have been active for two decades in this continent.

In general, we observe that there is a preference to keep sales activities under the own roof and to engage with local sales intermediaries for explorative market operations. I.e., for the markets that offer a sufficient business potential, the GMNLs prefer to conduct sales via a direct presence, while relying on external sales agents and distributors to address countries that are yet too small to justify a wholly-owned operation. The next graph illustrates this point by revealing that only in the less advanced countries from the ASEAN trade block the indirect routes to market outweigh the direct ones. Overall, 93% of all respondents reported that their companies have a direct presence via fully or partially-owned organizational units in Asia. In practice, it can be understood that the lion share of these units are under full control of the German-headquartered firms.

Graph 1. **PRESENCE OF GNMLS IN SELECTED ASIAN COUNTRIES**



Source: Own elaboration.

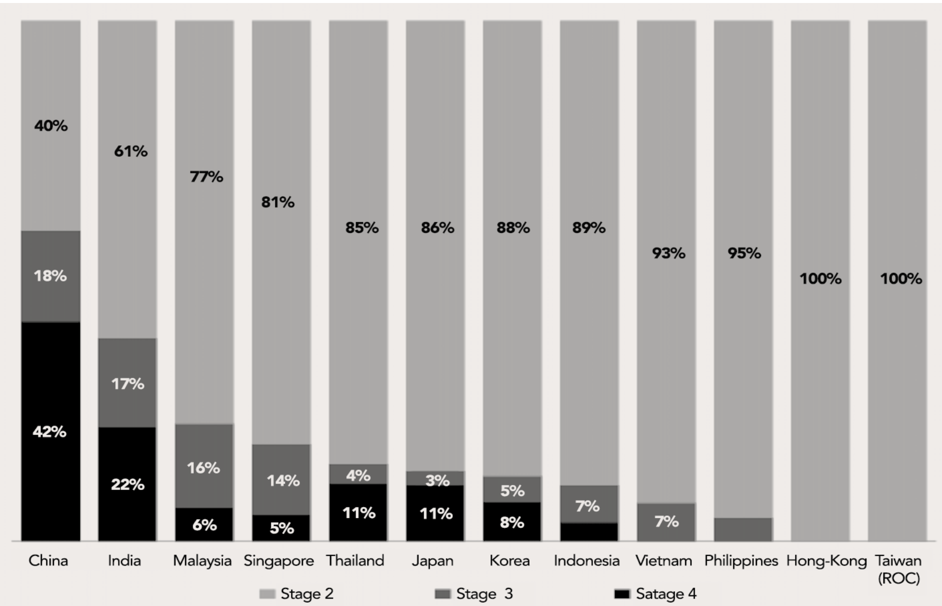
4.2. **Asia as a place to locate higher added value business functions**

Despite the rising importance of the Asian market for their business, there is no uniform pattern as to how the companies in question translate this into an organizational structure redesign and into decisions on allocating key activities and competencies abroad.

In fact, most firms have –beyond the upgrading of their commercial apparatus in this continent and tightening its grip on it – developed a rather modest production and R&D profile in the Asian region.

If we single out the firms that have reached stage 3 (adding local manufacturing to their foreign sales & service operations), we clearly see how China stands out and that this represents a substantial share of the German-headquartered GNMLs in India, whereas it is a marginal affair in the rest of the countries. Some 60% of the companies had manufacturing operations in China, whereas this was the case for some 40% of the sampled firms in India. Beyond these two countries the percentages are much more modest, ranging from 22% for Singapore to 5% in the Philippines.

Graph 2. **PROPORTION OF STAGE 2 – 4 COMPANIES PER COUNTRY**



Source: Primary data from Quantitative Survey.

When looking at the portions of companies that carry out -in addition to sales and manufacturing- R&D activities in Asia (stage 4), we observe sharp differences across countries. Particularly in China we find a large number of GNMLs with production and R&D operations on site: for 42% of the companies that were surveyed this is the case. These numbers are a reflection of the strategic importance of the country. The percentages are substantially lower for other countries. In India, it only applies to 22% of the sample and in Thailand and Japan for only 11% of the surveyed companies.

If we take a company and cross-regional perspective, about 42% of the companies analyzed are «insiders» in the region (this means that they conduct stage 4 operations in at least one of the key sub-regions –either in China, ASEAN and/or India). At the same time, we observe how only 3% of the companies surveyed are 'insiders' in all three sub-regions.

All in all, the expansion model pursued by GNMLs still seems to be focused largely on strengthening sales and service operations, with less of a focus on becoming a true insider (with production and R&D activities on site).

Hence, as illustrated in the next graph, only a minority of the companies attain the fourth stage in the previously presented growth stages model in globalization.

Finally, if we look at the plans of the surveyed companies in terms of staff expansion plans for Asia and the business functions the new recruits should be working on, we see that the proportion of firms that plan to increase their personnel in Asia for product development and research is substantial (more than half of the considered firms plan to do so). At the same time, the proportion of firms that plan to commit additional human resources in Asia for e.g. sales, marketing, procurement or management and administration are clearly higher.

4.3. **Coordinating company activities across the Asian continent**

Establishing regional headquarters (RHQs) is one way for companies to deal with the challenges of coordinating their global activities. Usually, key objectives for establishing regional headquarters are to exercise greater control over a number of smaller country subsidiaries separated by vast geographical distance, as well as to shift certain management responsibilities to these regional units to be closer to local market conditions so that faster decisions can be made (Amann, Jaussaud and Schaaper, 2014). For the purpose of the present study RHQs is defined as follows: a RHQ is a corporate unit with two or more country subsidiaries reporting to it. The management of the RHQ has relatively high decision-making autonomy in key functional areas like product portfolio and pricing, hiring of key personnel, and investment choices.

The survey results show that 72% of the companies had already established one or more regional headquarters in Asia, expressing that most firms have matured beyond a country-by-country approach for the region. Moreover, both the survey and the interviews pointed out that -given the vast magnitude of the Asian continent and the diversity of markets in terms of maturity and sophistication- the idea of creating multiple sub-regional headquarters is gaining ground. Of the surveyed companies that operate a regional headquarter in Asia, one quarter have split responsibilities into two or more sub-regional headquarters in Asia. The interviews also indicated that establishing a regional headquarters is a critical step in a regionalization strategy, helping companies both to exercise better control over their country subsidiaries and to get closer to local market conditions by shifting a certain amount of decision-making authority.

5. DISCUSSION

In line with what can be expected from their global leadership position, Asia is clearly on the radar of the surveyed GNMLs. Moreover, both in terms of sales value and building up business structures to support Asian operations, the continent is gaining in importance for the companies in question. It can be expected that this situation will become strengthened as about 50% of the global GDP growth until 2020 will come out of Asia (IMF, World Economic Outlook database).

The survey data also show that the sampled firms hold ambitious plans in store for Asia in the future, yet their plans are mostly focused on building sales and service capabilities, while they remain hesitant to shift manufacturing and –even more so– R&D activities to the region.

When it comes to governing production activities and sales channels in Asia, the GNMLs clearly show a preference for internalization arrangements instead of going for networked solutions.

As far as the surveyed companies have set up partnerships with local businesses, this has largely been done to compensate for a lack of means to set up shop on site on their own account, or due to the initial stage character of their foreign market entry or due to the initial size of a foreign market and taking a cautious stance towards it. The choice for partnering with local parties in the form of a strategic alliance and as a deliberate strategy to develop insidership, however, remained out of sight.

The former is coherent with the 'do-it-yourself' mentality that is considered characteristic for the preference of Hidden Champions to address foreign markets with their own sales and service subsidiaries. This inclination is arguably driven by the business focus of these companies; instead of selling commodities or mass-market products, specific products and solutions are developed in close cooperation with customers. While this kind of modus operandi seems to be widespread among German-headquartered GNMLs, it is possible that they might have to consider this kind of entry modes in the future. Both for the sake of foreign market entry speed and the ability to gather sufficient resources and the vigor with which an outside company can position itself in the Asian continent.

As for the setting up of R&D activities in the Asian region, this is a practice that is moving forward, although without too much impetus. This situation may (have to) alter, therefore.

Firstly, in the light of the experiences that the early movers of the GNML sample underwent in this regard: companies that have built up R&D capacity in Asia stressed the advantages of internationally organized R&D functions, as they improve market understanding and proximity to foreign customers.

Secondly, in view of the growing evidence that the context for innovating is improving considerably in Asia, and China in particular. The Made in China 2025 scheme, which channels vast resources into domestic R&D, is one of the conducive powers behind this. This expectation is mirrored through the Greater Shanghai Innovation Survey (German Chamber of Commerce in China, 2017), which finds that German firms will use China increasingly as a *Standort* for R&D activities. Similarly, it finds that a growing number of German firms plans to cooperate with third parties for R&D in China. In addition, the survey points out that half of the respondents considers acquiring local parties to drive their innovation agenda forward. Finally, around a quarter of the surveyed German firms suggests that their R&D activities in China serve to conceive products for the entire world as opposed to local-for-local product development or the adjustment of elsewhere conceived products.

Altogether, asset-wise the situation as documented via the survey shows a picture of moderate insidership among German-headquartered GNMLs in Asia; a situation that may witness changes in the coming years.

Governance-wise, though, the situation seems to be more advanced and appears to provide good ground to move forward and seize further 'insiderisation' opportunities, particularly if more assets and activities are established in Asia. I.e., the practice of installing regional headquarters and delegating powers or autonomy to these centres has become a common feature among the surveyed firms.

6. IMPLICATIONS, LIMITATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

Implications

We argue that it will be necessary for German GNMLs to shift gears and step up the process to become full-grown insiders in Asia. This will probably need to begin first in China. Many companies may otherwise risk becoming marginalized on the global market in the mid-term. Full 'insiderisation' in the way that we portray it means the maintenance of comparable manufacturing facilities and R&D facilities in Asia to those in the home country; a situation that is still the exception for most GMNLs, according to our findings.

In terms of the market segments to target, the 2015 report of Bruche and Venohr echoed the idea that many reverse innovation scholars (like Govindarajan and Ramamurti, 2012, or Buse and Tiwari, 2014) have advocated. I.e., that in many industrial and B2B sectors the market segments for de-featured products with prices 30–50% lower compared to the premium segment would undergo the largest and fastest demand growth in the foreseeable future. Consequently, it could be expected that pressure would mount on German-based GNMLs to enter such mid-tier segments and make their mark there. Firstly, to exploit the sales potential that these segments shelter. Secondly, to get to grips with good-enough products and technology as a way to compete with local challengers. Thirdly, entering the mid-tier market segment may also help GNMLs to better protect against local competitors trying to enter the premium segment resp. addressing the niches that GNMLs dominate.

Meanwhile, we believe that it is necessary to rectify or at least nuance this viewpoint. On the one hand, we continue to think that Emerging Asia, especially China, will be the key battleground for the determination of future global market leadership in many product categories. To state the obvious: a company needs to be No. 1 in Asia (especially China) if it wants to defend its leading position in the world market. On the other hand, instead of arguing that global leadership of GNMLs depends on conquering the mid-tier and lower echelons of the market through locally designed and manufactured products, we contend that in many product and technology markets we will start to witness a clash between Western and Asia-based contenders in the premium segment.[13] This will particularly be the case in China. The enormous push by the Chinese Government to upgrade its industrial base and assist companies to move into the premium market segments and compete eye to eye with high-end manufacturers from the West will be instrumental in this regard. For instance, the stated objective of the programme «Made in China 2025» (published in May 2015) is for China to become a major competitor in advanced manufacturing activities, a sector that is currently dominated by high-income, developed countries, such as Germany.[14] On the back of heavy investments in dedicated research and innovation, China is also expected to become a significant competitor in high-tech are-

[13] This implies that Germany-based GNMLs can expect to face more Asian competition in the premium niches in which they are active. Consequently, instead of fighting for market share in lower tier market segments, they will already have to upgrade their fitness to outperform the growing competition. There is another, perhaps subtler, reason why GNMLs might not want to focus on the mid-tier segments in Emerging Asia and that is related to the fact that many mid-tier markets in places like China are not niches, but mass markets. Thus, being a GNML does not imply having to be active in a non-niche market (like a large-scale middle market segment). So, both from a point of focusing on a specific range of products and qualities, and from a market segmentation perspective, it can make a lot of sense for GNMLs to pick their battles selectively and stick to their guns.

[14] See: https://www.csis.org/analysis/made-china-2025 and https://www.uschamber.com/sites/default/files/final_made_in_china_2025_report_full.pdf

as, such as Artificial Intelligence and robotics.[15] In the words of a representative of one of the GNMLs interviewed: «In many fields, China has gone beyond the stage of catching up and looking at others as their point of reference. Chinese firms used to be famous for imitating, but how is that even possible anymore? We move with our own projects now, with more demanding requirements if we compare them to those in the Western world – so who can we copy?» The former emphasizes the point that acting in the Chinese market will increasingly call for its own «insiderisation» strategy.

In parallel, for the Indian and ASEAN markets a «good enough» product design market strategy may be more indicative. However, it remains to be seen whether such market positioning is in line with the business philosophy of niche players in the first place (see footnote 13). Moreover, if GNMLs want to pursue such a market strategy it will likewise require a strengthening of their insidership in those markets because getting a real feel for the wants of mid-tier or bottom-of-the-pyramid customers can not be obtained with a tele-lens from a headquarters in distant Europe (Kamp, 2012).[16] Moreover, there is also a severe risk for Western firms in targeting segments that thrive on price competition. In the words of one participating firm in the survey: «Localization is imperative for a true globalized approach. However, it is absolutely critical to avoid localization which focuses only on a cost down strategy. This can result into a «trap» into which a number of multinationals have fallen when they went to the extreme to compete with local competitors in Asia».

For Western firms in general and (German) companies that aspire to become or remain GNMLs, the former implies that they will need to get «inside» the Asian market in a more vigorous way. This will arguably require a much stronger emphasis on FDI, on relating with partners from the Asian continent and a broadening of the scope of business functions rolled out *sur place*, notably functions of a higher added value nature (including R&D affairs).[17] Consequently, in many cases this will demand an acceleration of the process to reach stage 4 of the previously presented globalization model.

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15 See also: https://www.ft.com/content/cdc53aee-bc2e-11e8-94b2-17176fbf93f5 ; Tom Hancock, China's relentless export machine moves up the value chain, in Financial Times September 23, 2018.

16 Or as stated by Peter Löscher of Siemens (in: FT 12/3/12): «I would not be able to produce a 'good-enough ultrasound', exporting from Germany, never ever, [I couldn't use] my high-end engineers to think about what is 'best functionality' for a low-end ultrasound».

17 Admittedly, these evolutions may go faster in one sector than another, so the sense of urgency for setting up R&D assets in Asia may be higher for companies acting e.g. in the automotive industry than for those in the sector of pharmaceutical devices. Also, concerns about knowledge leaks from R&D activities in Asia remain an issue and also the appearance of cyberattacks or data phishing may make companies wary of delocating (or multi-localizing) R&D activities off-shore.

In line with the development of business towards Emerging Asia, GNMLs will also need to adjust their management processes and structures. While we have only dealt with shifting or duplicating primary value chain functions in this paper, a careful reconsideration of governance and company-cultural issues is necessary as well. This implies, for example, a redefinition of decision-making powers between the German headquarters and overseas headquarters to facilitate optimal decisions, while balancing regional and global considerations and ensuring the appropriate checks and balances. Another key challenge is the recruitment and retention of qualified local staff and management. If not addressed appropriately, the latter could turn into a chicken-and-egg problem: on the one hand, achieving a strong position in Asia requires establishing stronger regional functions in Asia with the potential to acquire global mandates and to attract senior talent. On the other hand, qualified senior personnel can only be attracted if attractive positions with decision-making power are created in a continent like Asia.

Altogether, for the near future we postulate that more GNMLs will coordinate their Asian operations by means of one or more Asian hubs, which –together with the German headquarters– can come to form a cornerstone of a fully globalized company. Such fully globalized companies may take the shape of a ‘differentiated network’ or ‘federated structure’ where embedded subsidiaries hold specific and increasingly global mandates, and where key value chain activities from certain locations are integrated globally, forming nodes that work as centers of excellence for the whole organization.

Limitations

Our results should be taken as a first indication only, as they are based on a survey that was carried out among a limited audience from a single country. Generalization of the results can therefore only be done to a limited extent.

As regards the correct measuring of the scale and depth of specific business operations in Asia on behalf of the surveyed firms, we also have to be careful. Without in-depth interviews or on-site visit, it is difficult to assess the exact nature of manufacturing operations reported by the respondents –whether the operations focus on certain components only or on the final assembly of certain products; whether they rely on imported components from Germany or are full replicas of the German headquarters operations. Similarly, R&D activities reported via the survey can also be of various kinds.

The fact that a large part of the Germany-based respondents to the survey had no personal expatriate experience in Asia may lead to an underestimation of the speed with which business developments unfold on this continent, and the implications this can have for the market segments that GNMLs should target. We have addressed this issue under section 6. From a methodological point of view, however, we believe that future research into these matters should either source from experienced expatriates only, or make a distinction between the perceptions expressed by business people with or without personal expatriate experience in Asia.

Suggestions for further research

The issue of building up market insidership on overseas continents is an issue that is not only relevant for Germany-headquartered firms. Therefore, it would be interesting to analyze the state-of-play among collectives of GNMLs from other places and to see how they are dealing and progressing with this challenge. In other words, a replication of the research presented here within other contexts is deemed relevant. Within the German context, a systematic following up on the situation into the future by means of a longitudinal analysis also seems worthwhile, both from a business and policy perspective.

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Unleashing firms´ growth potential

For a long time, growth has been assumed to be the result of an optimal combination of the production factors of labour and capital. This article argues that growth of companies no longer depends on only those two factors, but also on a third one: i.e., intangibles, such as investment readiness, investors mindset and entrepreneurship. Tangibles are the necessary, but not sufficient condition. The current era of robotization, digitalization and disruptive innovation increases the importance of the intangibles. Therefore, regional policy should henceforth be reoriented towards those intangibles leaving behind the classical subsidy-oriented policy, focused on SMEs as such, without controlling for those intangibles. That is the only way to achieve that companies with a growth potential can succeed in becoming a scale-up company, and that lifestyle companies optimize their growth potential. Moreover, if support policies are designed on that basis, they might even bring former offshored companies back.

Durante mucho tiempo se ha asumido que el crecimiento era el resultado de una combinación óptima de los factores de producción de mano de obra y capital. Este artículo argumenta que el crecimiento de las empresas ya no depende solo de estos dos factores, sino también de un tercero: los intangibles, como son la disposición de inversión, la mentalidad de los inversores y el espíritu empresarial. Si bien los tangibles son necesarios, en la época actual de la robotización, la digitalización y la innovación disruptiva, la importancia de los intangibles es cada vez mayor. Por ello, a partir de ahora, la política regional debería reorientarse hacia los factores intangibles, abandonando las clásicas políticas orientadas a la subvención, enfocadas a las pymes, que obvian los intangibles. Es la única manera de que las empresas con potencial de crecimiento tengan éxito, al convertirse en empresas que crecen y se desarrollan, y que las 'empresas de estilo de vida' (*lifestyle companies*) optimicen su potencial de crecimiento. Además, si las políticas de apoyo se diseñan de esta forma, podrían incluso atraer a empresas que han emigrado.

Denbora luzez onartu da hazkundea eskulanaren produkzio-faktoreen eta kapitalaren konbinazio optimoaren emaitza zela. Artikulu honek argudiatzen du enpresen hazkundea ez dagoela soilik bi faktore horien mende, hirugarren baten mende ere badagoela dio: ukiezinak; hala nola, inbertitzeko erraztasuna, inbertsiogileen pentsamoldea eta enpresa-espiritua. Ukigarriak beharrezkoak dira, baina ez dira nahikoa. Egungo robotizazio aroan, digitalizazioak eta berrikuntza disruptiboak ukiezinen garrantzia handiagotzen dute. Beraz, oraindik aurrera, eskualdeko politika ukiezinetara berrorientatu beharko litzateke, diru-laguntzetara orientatutako politika klasikoak atzean utzita, ETE-etan fokua jarrita eta ukiezinak kontrolatu gabe utzita. Hazteko potentzialitatea duten enpresek arrakasta izateko dagoen era bakarra da. Zabaltzen eta garatzen diren enpresa bihurtzen dira. Era berean, bizimodu gisa ulertzen diren enpresek (lifestyle companies) beren hazkunde potentziala optimizatzeko dagoen era bakarra ere bada. Horrez gain, laguntzarako politikak era horretan diseinatuz gero, emigratu duten enpresak ere erakarri ditzakete.

Rudy Aernoudt
Senior economist DG GROW
European Commission

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Keywords: investment-readiness, scale-up gap, offshoring, reshoring, lifestyle companies, high-growth focused policies, entrepreneurship.

Palabras clave: disposición a invertir, falta de recursos para escalar, deslocalización, relocalizar, empresas de estilo y de vida, políticas enfocadas hacia el alto crecimiento, emprendizaje.

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1. **INDUSTRY IS NO LONGER TABOO**

Industrial policy has for a long time been perceived as an old-fashioned post-war policy intervention technique, referring to the old steel- and textile plans. Consequently, industrial policy has been – in several governmental circles – a taboo word for the last thirty years. SMEs – small and medium enterprises – mainly active in the service sector, were assumed to form the backbone of the European economy. And services were considered more important for the economy than goods. Similarly, it was presupposed that the tertiary and quarterly sector would rule the economy. Big was no longer beautiful. A lot of industry went offshore, mainly to lower-wage countries. Europe was no longer supposed to be the place for mass production. Environmentalists considered that there was no more place in Europe for polluting heavy industry.

Over the past twenty years (from 1995 to 2015), the share of industry's contribution to GDP decreased in Europe from 23,3% to 19,3%; while the share of the public administration increased from 17,5 to 19,1%. Consequently, the GDP share of the public administration became as big as the share of the industry. And in some countries, like Spain, France or Belgium, industry came to represent far less than this European average of 19,3% of the GDP. Moreover, in those countries the share of the administration in the economy ended up being bigger than the share of the industry. Such a situation leads us to the question: «How can such a model be sustainable?»

Table 1. **SHARE OF INDUSTRY COMPARED TO SHARE OF ADMINISTRATION**

	Share of industry	Share of administration
EU	19,3	19,1
Belgium	16,7	22,5
France	14,1	23
Spain	18	18,8
Germany	25,5	18,2

Source: Eurostat.

Only recently, the European commission has tried to restore the importance of industry (European commission 2017). The commission stressed the need to bring industry's weight in the EU GDP back to 20% by 2020, both at the level of Member States and regions. In this context the Basque Country is an interesting example of a region that clearly maintained a firm confidence in its industry over time and has, consequently, preserved a strong industrial weight in its economy. Over the past decades, long term support policies in the Basque Country have favoured the evolution of traditional sectors, such as iron, steel, energy and of small and medium-sized companies at large. But also aeronautics became a pillar of the Basque economy, while the region even became one of the top producers in hyper competitive markets such as the one for wind energy, using the newest robot application in their production. As proven by all economic indicators, it was the right choice. Industry generates 23,9% of the Basque GDP; a ratio that is close to the one of the German economy. Amidst the industrial strength of the Basque economy, the agility of a range of firms to position themselves as first movers into specific market niches stands out, giving the Basque region a ratio of International Niche Markets Leaders of 14 per 1 million inhabitants, which is in line with countries such as Germany, Switzerland and Austria (Kamp 2017). Moreover, the

Basque industry is highly internationalized, through the production and export of components and input for overseas companies, and/or by setting up commercial and manufacturing activities abroad.

Finally, from an industrial policy design and implementation perspective, the Basque region was at the forefront of the introduction of the use of the concept of clusters: already in the early nineties the first clusters were established by the regional government to boost cooperation for innovation and internationalization of the associated firms. At that moment, a lot of European regions weren't yet aware of the concept. Eventually, many regions, such as France, Italy and Belgium followed the Basque example.[1] Evidently, preserving a substantial share of industrial economy to underpin a territory's economy is one thing, but ensuring that industrial firms can grow and that the economy as a whole can expand is an entirely different issue. Particularly when the growth orientation of so many (small and medium-sized) firms that operate in manufacturing industries are, at best, led by cautiousness.

The remainder of the present text addresses both a series of characteristics of industrial firms and what policy makers (at different levels) can consider doing to unlock the growth potential of SMEs that are active in industry. To that end, the rest of the paper is structured as follows: after discussing the main challenges for high-growth firms, we'll focus on the main ingredients and obstacles for growth being growth capital, management mindset, skilled and affordable labour and an entrepreneurial context.

2. MAKING THE CASE FOR HIGH-GROWTH FIRMS

2.1. Importance of high-growth firms

A lot has been done in Europe and its regions to promote start-ups. And figures show indeed that Europe is bridging the gap with the United States in this field (EPSC 2018). But this focus on start-ups often implied that the growth capacity of existing firms had somewhat been neglected. For example, family-owned businesses that don't always fully use their growth potential as family priorities block their ability to grow (Lorange 2005). Others, willing to grow are faced with obstacles impeding their growth. To illustrate the former, Europe is particularly underrepresented in the segment of fast-growing companies. Out of the 150 unicorns, i.e. companies having a value of one billion dollar after three years – for instance, only 9 are «living» in the European Union. However, this doesn't mean that only 9 started their business in the European Union.

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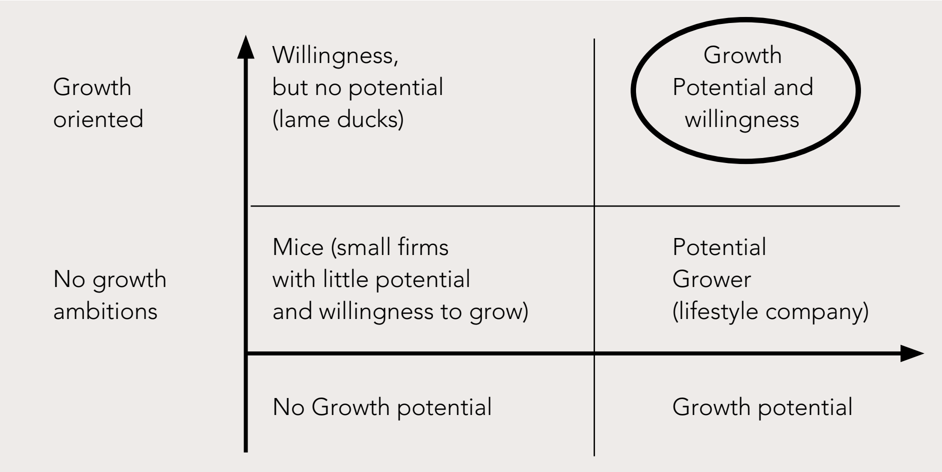
[1] As head of cabinet to the minister of economy in Wallonia in the years 2002 - 2005, I came to the Basque region in order to convince my minister of the cluster approach. This approach is still nowadays considered as the best economic policy in the Walloon region with eight clusters: aeronautics, nanotechnology, biotechnology, new materials, logistics, health, agro-industry and mechanical engineering.

As a matter of logic, Growth policy should be focused on companies with Growth potential and Growth ambitions and enable those companies to surmount their obstacles for growth. Companies with growth potential, but without growth ambitions, should not be neglected either as a strategy change could allow them to exploit their untapped growth potential. From a policy point of view, focusing on these two company types could thus deliver good value for public money.

Schematically speaking, we can divide companies into the following categories according to their eligibility for policies for growth support:

Figure 1. **TARGET GROUPS FOR POLICY INTERVENTION IN SUPPORT OF COMPANY GROWTH**



Source: Own elaboration.

2.2. **Rationale for support to high-growth firms**

Industrial regions have often tried – when confronted with the closing of industrial plants, and subsequent job destruction – to compensate this loss by promoting support for fast growing economic activities. The former makes sense, as not all businesses have the same growth potential (Shane 2009) and a few rapidly growing firms often generate a disproportionately large share of all new net jobs compared to non high-growth firms (Henrekson & Johansson 2009). In the UK, for example, research has shown that a very small proportion of the UK businesses that count more than 10 employees (i.e., some 6 per cent of them) accounted for over half of all jobs created within the UK (Anyadike-Danes *et al.*, 2009, NESTA 2014).

The character of these firms' growth trajectories is very varied. Their growth can be based on disruptive technological innovation or on business model innovation.

The innovations in question can be both high tech and low tech, and the firms in question can be active in all types of sectors (including mature markets). Hence a sector-oriented policy is not a good instrument to promote high-growth firms and it is therefore better to tackle the barriers at a general level.

2.3. **Barriers to unlock the potential of high-growth firms**

In view of their relevance, it is required to look into the main obstacles that prevent companies with strong growth potential from actually growing. Aernoudt and Van Rompaey (2016) identified eight barriers to growth, four with an internal firm character and four with an external character. The following table presents the respective barriers:

Table 2. **BARRIERS TO GROWTH**

Internal barriers	External barriers
Qualified labour force	Hugely competitive & fragmented market
Management skills	Government restrictions (e.g. in the field of competition or labour)
Capital	Red tape & corruption
Governance structure	Limited external partners

Source: Own elaboration.

The internal barriers are of a rather universal nature, as they also apply to low growth companies, and they suffer a lot from these barriers. Employing a qualified labour force is hampered by high labour costs and the rigidity of labour markets. To illustrate, the excessive labour cost is one of the main reasons why following surveys 46% of the start-ups want to leave Silicon Valley in the next few years (The economist, 2018). In relation to the lack of management skills, this often comes down to the lack of a versatile team that includes technical, commercial and financial capacities. Access to finance is a further obstacle to growth, and it is not untypical that companies that don't manage to find funds in Europe, and do find transatlantic donors end up going where the money comes from (De Prycker, 2017). As regards governance structure, particularly family enterprises often chose to keep total control over their venture, disallowing outsiders to play a role in the eventual growth of the firm.

External barriers are evidently not so mouldable by the entrepreneurs concerned, whereas some of them are neither a «captive» issue for policy makers. The external barrier on which policy makers can have a huge impact is the issue of red tape. Companies that are confronted with too much red tape, a corrupt government, too strict labour laws or highly regulated markets are more likely to suffer from growth constraints. Network failures in the form of limited access to external partners is another barrier, just like lack of consensus on standards across borders leading to fragmented markets.

When summarizing the four most obvious challenges and their respective policy antidotes to allow firms to seize their growth potential, we obtain the following overview:

Table 3. **POLICY RESPONSES TO PERTINENT GROWTH CHALLENGES**

Challenges to growth	Policy actions
Capital	Hybrid offer of financing instruments
Management openness	Investment-readiness actions
Skilled and affordable labour	Avoid offshoring & promote reshoring (tailor-made)
Enterprise and entrepreneurship-friendly policy (limited red tape, no corruption, fast decision-making)	From SME to high-growth focused entrepreneurship policy

Source: Own elaboration.

In what follows, we will address each of grounds for policy action.

3. FINANCING INSTRUMENTS

3.1. Europe's loan culture

Europe has above all a loan culture. This «dumb money» preference – bankers hardly get involved in the management – hinders growth, implies systemic undercapitalization and generates a competitive disadvantage in comparison to e.g. American companies that depend less on debts.[2] Lack of finance and undercapitalization are major reasons why companies do not fully exploit their development potential. One of the major issues is here that European 'risk-capitalists', despite their epithet, avoid risks. They prefer either to invest small amounts in the start-up phase of a firm, or –at the other side of the lifecycle of businesses– finance a MBO (management buy-out) or if possible a LBO (leveraged by-out) operation where return is higher and risk is lower. Therefore, the money readily available in Europe doesn't go to companies looking to finance their expansion.

The European market is characterised by fragmentation and a systemic lack of cross-border investments. Firms with a scope to scale up and to internationalise their

[2] For a comparative analysis between US and EU balance sheets we refer to R. Aernoudt (2017a). For an analysis focused of the indebtness of Spanish and Basque enterprises, see Gonzalez-Pernia *et al.,* (2016).

activities have severe difficulties in finding funding. This either leads to start-ups not being financed anymore and therefore suspending operations (e.g. «Take eat easy») or to European scale-ups leaving Europe and going mostly transatlantic or to China where money is abundant. To illustrate: 44% of European-born companies that got EU-support (through R&D or EIF) in their start-up phase and that successfully scaled up left the EU. As examples are more convincing than statistics: the Danish customer software service Zendesk, the German robot manufacturer Kuka, the Finnish gaming developer Supercell, the French digital performance display advertiser Criteo, and the Estonian global internet giant Skype; they all left Europe.

3.2. **The scale-up gap**

There is no longer a major difference between the EU and the US as regards new firm creation, but Europe is lagging behind in relation to scale-ups (Scale-Up Manifesto, 2016). Out of one hundred start-ups in the US, 22 succeed in becoming scale-ups[3] compared to only 12 in the EU (Streeter, 2012). Various causes explain this difference, such as a lack of skills, including management skills, lack of innovation and the non-completion of the internal market (Scale-up manifesto, 2016). But above all, it seems more and more difficult to obtain equity financing in the later stages. As such, the barriers that potential scale-ups face coincide a lot with the barriers presented in Table 2 and 3.

Venture capitalists, when interviewed, stated that scale-ups in the US seeking capital to get them through an expansion phase, raise between two and three times the level of capital than their peers in Europe (Thomson, 2015). Available equity capital in the US is 21 times than in the EU (against ‘only’ eight times for start-up and seed money). This later stage equity gap is the biggest financial obstacle for start-ups to scale up in Europe (European Commission survey 2016a). Consequently, 90% of the fast-growing companies have problems to finance their growth in Europe (Innovfin study 2016). Following estimations, closing this scale-up gap – the gap between supply and demand for venture capital for big amounts in a later stage – between the EU and the US could create up to one million new jobs in the EU over the next 20 years (Scale-up manifesto, 2016).

Indeed, venture capital investing is about trying to support different companies in developing scale hoping that some of them will become gazelles. It is high risk. Most investee companies do not achieve high growth and many fail. The success of an investment portfolio therefore depends on achieving a couple of ‘winners’, the returns from which will more than compensate the investments that turn out to go nowhere. But in order to have a couple of winners you need to make at least 10 to 15 invest-

[3] Scale-ups are defined as high-growth firms with a growth rate, in either employment or turnover, higher that 60% over a three-year period and with a growth rate of at least 20% each year. The requirement of a positive growth rate of 20% is based on Birch’s work on gazelles (Birch, 1995).

ments (Mason 2016). European companies active in advanced technologies struggle to raise the huge amounts of finance they need for further growth and development (InnovFin, 2015). European scale-ups have to finance their investments with internal funds and their growth is therefore threatened by financial constraints. There is widespread evidence that the current size of the venture capital funds is not great enough to adequately meet the current and forecasted strong demand (Baldock, 2016). For fast growers access to growth finance, which in practice for those companies means access to equity and quasi-equity, remains hence problematic, especially when looking for bigger amounts (OECD, 2016). Apparently, demand and supply do not meet at the higher end. We can thus conclude that previously the small equity early stage gap was the biggest obstacle for starters, but at present the big equity later stage gap seems to be an even bigger financial obstacle for scale-ups (Aernoudt 2017a).

3.3. **Need for bigger funds**

Bigger funds tend to perform better, which results in a healthier, more sustainable VC market. Therefore, studies recommend having funds that are large enough to invest in start-ups at all stages of development, especially the late and growth stages (Brigl, 2015). The structural weakness of the European venture capital market relates indeed mainly to the small average fund size. Funds in the US have an average size of USD 135m, being more than twice as much as the average size of their peers in Europe. Companies trying to raise EUR 15-25m in third round financing are often unable to find this in the EU and are forced to move somewhere else. Concretely, the average «ticket» that a scale-up is looking for is 22 million euro. Be careful, this is an average. Skype for instance was looking for 122 million euro. Now given the diversification and sound management principle that a fund should not put more than 10% of its assets in one company -and given the average size of a European fund at 65 million euro- it is almost impossible to land this type of ticket in Europe.

So the only solution is to make funds bigger. However, this does not imply that we consider these supply measures more important than regulatory or fiscal measures. As we know, the road to a mature equity market is paved with favourable tax laws, legal structures that accommodate the establishment of private equity funds and liberal bankruptcy laws that provide little or no time of discharge for entrepreneurs (Aernoudt 2017a). Focusing on the money-supply side gap, we can distinguish between three main types of interventions: direct involvement into investees, co-investment at investor's' level and government-backed lending mechanisms.

Government policy in the eighties and nineties often meant setting up public funds. This was based on the philosophy that if the market doesn't work, the public sector should take over. Therefore, governments have tried to fill the investment gap left by private venture capital investors, by launching public venture capital funds, such as university seed and regional government-controlled funds.

These funds are mainly investing in small, young, seed-stage companies; and not in scale-ups. These public funds are however not the best policy option as public investors rarely have the competence to pick winners, either because they lack the skills to perform successful selections or because of possible distortions of the investment strategies due to political interests (Brander *et al.*, 2008). Moreover, those funds are rarely effective in monitoring, nurturing, and mentoring investee companies (Cumming *et al.*, 2013) and they fail to attract private VCs to the public venture capital backed companies. Finally, public investment may displace private investment, leading to crowding-out effects (Cumming and MacIntosh 2006). Eventually, the performance of their portfolio companies is limited (Grilli and Murtinu 2014). An alternative for direct investments is to use public guarantees in order to protect against losses via downside guarantees, but this is even worse in terms of value for public money.

Lessons learned, government policy dealing with the supply side of venture capital, typically takes nowadays the form of participation in the capital of selected commercial funds. Public selection criteria might include regional preferences, or focus on innovation, on selected sectors and/or on small amounts. The public co-investor can operate on a European (through the European Investment Fund), national or regional level. Examples are the BPIFrance, the KfW in Germany, SITRA in Finland, Axis Participaciones in Spain, Easo Venture in the Basque country, the UK Innovation Investment Fund in UK and so on. More than one third of all funds in Europe are publicly co-financed (Scale up manifesto, 2016). Public venture capital increased its share from 9.9% to 39.1% of the VC market (EVCA, 2013). The importance of government agencies became unsatisfyingly high for the long term (EIF 2015). Therefore, co-investment schemes can partially narrow the equity gap by injecting more money into the venture capital markets, but do not really close the scale-up gap. The over-reliance on the public sector goes along with a lack of private sector interest (Oxford Research, 2015). The involvement of pension funds as investor is the most important element behind the underdeveloped state of the European VC ecosystem (EIF 2018).

A third way to increase the supply of venture capital is a Government-backed lending approach. This means that the public involvement enables additional and cheaper funds to be raised, creating a leverage advantage to private investors. Structuring the government participation as a loan (or technically as B – shares) creates a leverage effect that increases the private profit when the IRR of the fund exceeds the interest rate on the debt. Moreover, profit entitlement of the public investor or the publicly backed lender-investor is capped. Both factors increase the relative share of any surplus that the private investors receive. This lower public return often goes along with a less risky position for the public or publicly backed investor. De facto, the investors are composed of risk-taking and risk-averting investors. One of the most known examples of this approach is the US SBIC program, which stands for

Small Business Investment Company. The basic characteristic of the SBIC programme is «leverage». In SBIC jargon this means that SBICs can raise funding on public capital markets by using an SBA (Small Business Administration) guarantee. To obtain leverage and in order to attract other type of investors to the venture capital world – the risk-averters – the SBA issues bonds, guaranteed by them, on the financial markets and uses that money to lend to regular SBICs. The effect of the leverage is to reduce the average cost of capital for the SBICs, in the sense that the equity returns are geared upwards, if the company's investment portfolio as a whole makes a return above the interest cost (Aernoudt, 2017b). Tesla, Apple, Fedex are some examples of the around 175.000 companies financed through the SBIC-system. The European commission explores the idea of implementing an SBIC-inspired approach for Europe, under the name of «ESCALAR»: European scale-up action for risk capital (European commission, 2016b).

4. **INVESTMENT-READINESS**

Besides this supply issue, there is a demand-side issue. Too often businesses, in particular second and third generation family-owned enterprises do not use their growth potential as they are not willing to open their capital and ownership structure to outsiders. In corporate finance jargon they are considered as «not investment-ready». They prefer 100% ownership instead of the expansion of their company by all means. Eventually, though, if they end up taking on increased debt financing it can happen that they are sold to international groups or in the worst-case scenario, they become zombies or eventually go out of business.

4.1. **Lifestyle companies**

Organizational choice towards be(com)ing a «lifestyle company»[4] is another form by which the scale-up potential of firms, and hence the growth potential of territories can be limited. Particularly in regions whose economies used to depend on industrial and family-run businesses, the existence of «lifestyle» companies can be abundant and this may hinder regional growth potential. Those companies are reluctant to open their capital structure and therefore they put a financial constraint to their growth possibilities. A study by Bains (2002) showed that indeed more than half of the growth potential among this type of firm was untapped. According to Aernoudt (2011), this is a luxury one cannot afford, especially in times of crises and when being confronted with a massive closing down of industrial plants. The fact that enterprises at a certain stage have difficulties in financing further growth based on internal funds, also forms an indication that (family) firms should consider ex-

[4] A lifestyle company is a company set up and run by its founders primarily with the aim of sustaining a particular level of income and no more.

ternal participation as an element of a growth strategy as it gives them the oxygen of capital and management support.

However, in family companies, there is not always full separation between family and business, implying that the two interest spheres typically need to be reconciled. Often, this hinders the opening up of the firm to external capital or attracting external management. Instead, owners-entrepreneurs prefer being their own boss.

Managerial competence is however not by definition present within the family, and as shown before, can form a major internal barrier to growth. Therefore, often it is suggested that the best way to maintain a sustainable development is by assuring that an external manager succeeds the initial pioneer-entrepreneur. Of course, the same applies to the company's board where external independent board members can also form a welcome asset in view of the company's development. In particular if family interests overshadow company interests.

The family origin character of a region's businesses is not only observable when looking at the management structures of firms, but also -perhaps even more clearly- when looking at their financing modes. The traditional pecking order theory (Myers and Majluf 1984) suggests that the financing source of choice is earnings retention, followed by external debt. External equity is the last resort. The pecking order theory is often referred to as the big boss syndrome. From this point of view, owners/those-in-charge prefer to finance their investments with earning retention from cashflow. And only afterwards they consider bank financing, whereas venture capital is still considered as a worst-case option. This systematic appeal to bank financing to fund investments, both in the long and short run, leads to a systemic undercapitalization of the company and can provoke liquidity problems. In the European Union 75% of the enterprises get bank financing, whereas in Spain, for example, 35% of the companies are considered as financially vulnerable with the respective figures for Navarra and Euskadi being 28% and 30%, respectively (Gil de Vicente, *et. al.* 2017).

4.2. **Looking for real entrepreneurs**

Real entrepreneurs such as the 1st generation entrepreneurs are oriented towards the future and have growth ambitions. Therefore, they are keen to convince venture capitalists to invest in their project. Most literature agrees that venture capital backing leads to growth, while refusing such backing may impede growth. There is indeed robust empirical evidence that VC financing is associated with faster firm growth and an acceleration of the innovation and commercialization process (Kelly and Hankook, 2013).

Nevertheless, most European enterprises do prefer short-term considerations and the entrepreneur hence often prefers to remain 'the boss of a small company' rather than the 'manager/shareholder of a big company'. Consequently, entrepreneurs that display satisfactory behavior are essentially concerned with creating an income for themselves and a lifestyle for their families. One of the ways to accelerate the growth of these companies is to identify and convince the family members that opening their capital might lead to better performance. The Investment Readiness Program of the British Department of Trade and Industry forms an interesting initiative in this regard is. It is designed to groom entrepreneurial businesses to the point where they are an attractive proposition to outside investment capital (DTI report, 2008). A subtle formula for that might be the promotion of mezzanine financing. Although considered by the banks as own capital – quasi-equity in the corporate finance jargon – facilitating hence further access to finance, the owner remains 100% shareholder of his or her company. This enables companies to find the necessary financing for their development, without diluting ownership; in other words, without opening their capital. Mezzanine financing is still underdeveloped in Europe and should be further promoted. Leading regions betting on industry and new technology could play a vanguard role in this.

Besides the unwillingness to lose total control, another reason why companies try to avoid venture capital is the fiscal discrimination whereby interests on credits are deductible while return on venture capital isn't. The fiscal discrimination stimulates entrepreneurs to favor debt financing over own funds financing or venture capital funds. In order to neutralize this discrimination, one could consider that financing with equity should lead to fiscal advantages similar to debt financing. This would give an incentive to entrepreneurs putting their own savings or opening their capital and would hence lead to a better solvency and enhance the competitiveness of the enterprises.

Finally, preparing the transmission in due time by promoting interim management and setting up fiscal incentives both for the investor and for the investee combining taxation with transmission and coaching and by developing specific financial & legal construction for transmission such as LBO and holding companies that are separating ownership and control could anchor family businesses in their home regions and avoid them offshoring or ceasing activity once the family is no longer interested in the daily management.

5. **OFFSHORING AND RESHORING**

The two aspects linked to the mindsets of investors (scale-up gap) and entrepreneurs (investment readiness), do not imply that tangibles are not important. The cost of labour, the cost of energy and the high taxes – just to enumerate some of the tangibles that make it hard to set up and expand business in Europe – were at the basis of the off-shoring dynamics that the European economy has known.

5.1. **Offshoring**

European regions are confronted with a huge industrial challenge. The manufacturing industry is still an important industry. External investors, in combination with pioneers-entrepreneurs, laid the basis for the prosperity of the European regions and its inhabitants for several decades. The comparative advantages that allowed the European industry to prosper eroded, and the attractiveness of Europe and its regions as locations for new plants weakened, consequently. At present, subsidies are hardly allowed to support large scale business or sectoral activities by the EU-competition law, at least in non-crisis circumstances. Similarly, available space for large scale industrial real estate became rare and quite expensive. In addition, labour cost is high mainly due to taxation policy, provoking a high salary gap (difference between gross and net salary). Consequently, a lot of companies decided to move, at least partly, to low-cost areas in particularly Asian countries. Big enterprises moved their production plants to Asia but still focused on the European market to sell their products. One could say that the wage difference should be compensated for by productivity surpluses. But productivity growth has attained its limits in neutralising the competitive disadvantage provoked by the salary differential. Following estimations, during the period 2007-2009, around 40% of companies employing more than 50 persons moved their production to some extent. This had not only a negative impact on growth and employment in Europe, but also increased the mobility challenge and our ecologic footprint. It does not make sense to produce for instance sport shoes in China and then transport them back to Europe where the main costumers are. A study realised by the IESE business school and the Duke University, calculated that half of the large Spanish companies have relocated services and 23% intended do so in the future.[5]

In the meantime, the situation changed drastically. Labour cost in Asian countries increased rapidly. Logistics have become costly. The environmental awareness and sustainability issue becomes more and more critical for companies producing in low-cost countries; countries that don’t have the same environmental and social conditions as the countries where the products are consumed. As the consumer becomes a major stakeholder the attractiveness of producing under such conditions loses appeal. But above all, digitalisation and robotisation lead to a significant productivity increase (up to 60%) hence reducing the relative share and the cost of labour in the total cost and giving a relatively higher weight to the costs of logistics. The single market strategy, the digital agenda, the capital market union and the energy union will further work on the conditions enabling and facilitating economic growth and job creation and

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5 http://www.europapress.es/economia/noticia-economia-empresas-mitad-grandes-empresas-espanolas-deslocalizado-servicios-23-hara-futuro-20061213134124.html

create conditions for the development and the reshoring of the industry. And indeed, the tendency of off-shoring seems to be on its way back, literally. In several cases, the rise in the cost of labour along with the hidden costs of off-shoring starts to outweigh the competitive advantages that delocalization used to yield. Moreover, further productivity growth implies that the labour factor becomes less important in the total cost. All these factors mean that the total cost of operation (TCO) of delocalisations increases and that off-shoring is not the best choice (any more). Therefore, we can imagine that for a lot of delocalised companies reshoring could become a real option.

5.2. **Reshoring**

Re-shoring or back-shoring is a voluntary corporate strategy regarding the partial or total relocation of previously off-shored production to the original home country. Re-shoring, or potential reshoring, has become an option in many company decisions regarding the allocation of manufacturing activities. From a policy point of view, we could therefore wonder if one should not pro-actively approach those industries that have left Europe to produce abroad and analyse how they can be brought back.

The US has set up a reshoring agency that pro-actively screens companies that left the US and tries to bring them back. The agency estimates the reshoring potential somewhere between 3 and 4 million jobs. Of course, the US suffered more from off-shoring than the EU, so there is a larger reshoring potential for the USA to be tapped into. Whirlpool, for instance, is an example of a successful reshoring. In Europe, some countries took similar initiatives. Also in the UK the government has set up an agency called «Reshore UK», aiming to assist firms to come back. On request of the European Commission, Eurofound started a European Reshoring Monitor. This is a statistical tool that monitors the extent with which manufacturing activities are returning to Europe. The European Reshoring Monitor identifies cases of reshoring. In this context, we should raise the question if reshoring is a policy issue or if we should limit ourselves to observing and monitoring the reshoring phenomenon. Together we could, case by case, determine which area in Europe is best positioned for reshoring. Companies that are labour-intensive might find European countries with relative low wages to be the most attractive. Companies looking to be at the crossroad of the consumer market, may prefer to reshore within a triangle like Paris – Brussels – Berlin, which includes a large and diversified consumer base. And companies that would obtain an advantage from embedding themselves in a sector-specific cluster environment, might benefit from moving to regions with strongly developed cluster structures in particular industries, as in the Basque Country. So we need a tailor-made solution. An «enterprise 5.0» approach. Such a reshoring policy could of course be integral part of an industrial policy.

6. ENTREPRENEURSHIP-FRIENDLY POLICY

The recent crisis has shown that globalisation processes (can) lead to a competitive disadvantage of European SMEs that are faced with high labour costs and a shrinking market. At the same time, however, and due to the delocalisation of bigger firms, SMEs were considered as the *deus ex machina* for regional development. While some big enterprises decided to leave their region and delocalise their production units, subcontractors, mostly SMEs, had to make a choice: or to follow their contractors or to realise a turnaround of their activities as they were faced with underutilised production capacity. The public authorities –in an attempt to retain as many industries and SMEs as possible -–as well as pushed by the SME lobby organisations– invented different incentives in order to stimulate SMEs to grow and to invest in their regions. The starting point of such an SME-policy was the neo-classical approach, i.e. that one should reduce imperfections or negative external effects in the market place. The goal of such an SME policy is hence to strengthen the existing base of enterprises by ensuring they can compete in the global marketplace and that they are not put at a disadvantage because of their small size relative to large firms.

6.1. A patchwork of measures

Different measures at local, regional, national and European level have been set up in order to assist SMEs. Most of these measures were an answer to sectoral lobbying and were therefore heavily sectoral oriented. The whole SME policy became a patchwork quilt of complexity and idiosyncrasy and the outcome of most evaluations regarding their effectiveness was rather negative. It was made clear that only few small businesses appear willing to accept support. Different reasons were identified for the low take-up of support measures: the support provider does not understand the owner's business, accepting external support is often perceived as threatening personal autonomy, measures ignore the heterogeneity of small firms or the specific character of the localities they are located in, and the application procedure is considered heavy involving a lot of red tape.

An analysis of the SME policy in the United Kingdom concluded that the alleged benefits of small business support may have to be called into question. Indeed, the policies and the infrastructure to deliver support to SMEs are expensive while small business owners themselves appear resolutely unwilling to accept their alleged benefits. An analysis of the Belgian SME policy comes to similar conclusions. An in-depth historical study shows that more than 70 years of Belgian SME policy did not serve the SMEs. The biggest shortcoming is that one of the aims of SME policy –positive discrimination of SMEs in order to create equal opportunities for all enterprises – has especially led to discrimination among the SMEs themselves within a given sector. There is absolutely no need of a specific SME policy, concluded Lambrechts (1998) at the end of his research.

Recent analysis showed that efficient SME policy should not be sectoral focused, as innovation (as the main determinant for growth) is open and interdisciplinary. Moreover, sectoral focus leads to fragmentation of the SME policy and hence creates inefficiency. Therefore, SME policy should be redesigned in order not to hinder intersectoral collaboration and intrasectoral discrimination in order to result in good value for public money.

The different types of incentives in the SME policy support area can be summarized as follows:

Table 4. **DIFFERENT TYPES OF INCENTIVES IN THE SME AREA**

Type of incentive	Type of problem	Size of resources	Example of Objectives
Administrative burden	Too much High compliance costs	Relatively small	Reduce burden by x %
Financial efforts	Lack of capital at reasonable terms and conditions	Significant resources Few grants	Set up guarantee schemes
Counselling and information	Lack of competence high cost	Many providers	Create transparency
R & D	Little technology transfer	Significant resources	Facilitate research and innovation
Export	Low degree of internationalisation	Relatively small resources	Better use of export potential
Special programs	Too few	Relatively small	More women entrepreneurs

Source: Own elaboration.

6.2. **From SME policy to entrepreneurial policy**

Entrepreneurship policy is more ambitious and focuses rather on the creation of a mindset where the target group should be the entire population and the ultimate goal is to create an entrepreneurial society. Fostering entrepreneurship is nowadays recognized as one of the best ways to boost economic growth (González-Pernía *et al.*, 2015, Aernoudt *et al.*, 2015).

We can schematically try to compare both approaches:

Table 5. **COMPARISON BETWEEN SME POLICY AND ENTREPRENEURSHIP POLICY**

	SME policy	Entrepreneurship Policy
Basic assumption	Market imperfection	Entrepreneurial gap
Objective	Help SMEs to overcome inconvenients towards big enterprises	Encourage people to set up a business or to think entrepreneurial
target Group	Enterprises, mainly existing firms	Individuals, entrepreneurs
specific criteria	Picking winners: high growth sectors	Particular segments possible: women, ethnic groups, youth, ...
Levers	Financial (investment subsidies, financing, R&D, export, ...)	Mainly non-financial support (venture capital, business angels, crowdfinancing)
Focus on	Business environment	Entrepreneurial culture

Source: Own elaboration.

The emerging interest for entrepreneurship policy often leads to the false conclusion that the end of the SME policy is in sight. The focus on and the shift towards entrepreneurship policy does not however imply the end of an SME policy but a shift of focus towards environment and financing issues rather than direct support and subsidy measures. A close look at the table indeed shows that the choice is not one between SME policy and entrepreneurship policy, but that they can be complementary as neither the focus nor the target group are the same. As already mentioned, growth is only possible in an environment where the efforts of the entrepreneur are supported and sustain the growth of his/her venture. Only where all the concerned actors (universities, government, trade union, etc.) work together, can a growth ecosystem lead to sustainable job and wealth creation. Sustained growth supposes, as mentioned earlier, real entrepreneurs. People willing to take initiative and risk, building trust among their fellows, taking responsibility and inspiring the people they lead. Such people should be fostered. Building an ecosystem for fast growers and high growth companies is worth a collective effort (i.e., deserving public support), where each group and function has its specific responsibilities. Rather than concluding the absolute inefficiency of SME policy, we claim that an SME policy cannot be efficient in the absence of an entrepreneurial society. The SME policy is hence complementary to the entrepreneurial approach.

Finally, such an entrepreneurial approach should not be focused on «picking winners» as neither governments, nor venture capitalist, are able to pick winners. At the same time, entrepreneurship policy should not be generic, but focused on high-growth entrepreneurship initiatives. Such a policy can deliver a non-trivial, value-adding impact on the high-growth entrepreneurial activity (Autio, et. al, 2016).

7. BY WAY OF CONCLUSION

In creating a prosperous context for growing enterprises, the government has a major role to play. Indeed, creating jobs is not an obligation but a consequence of a motivational and stimulating environment. *As fast-growing young firms account for a disproportionate share of net job creation,* it is not surprising that *policy makers seek to foster the creation of more high-growth firms.* A non-growth oriented environment however doesn't attract growth-oriented entrepreneurs.
Machiavelli states that Entrepreneurs are simply those who understand that there is little difference between obstacle and opportunity and are able to turn both to their advantage. Therefore, regions that do not want to rely only on services and tourism, should convert these obstacles in opportunities allowing companies to unleash their growth potential. Consequently, regional policy should be focused on four axes: coping with the scale-up gap, making entrepreneurs investment-ready, creating an industry-friendly environment and bringing industry back and finally assuring an entrepreneurship-friendly climate

Networking, mezzanine financing, private investors and open innovation are crucial in order to untap the growth potential of a region. Indeed, one of the main characteristics of an entrepreneurial area is to offer a hybrid variety of financial instruments. Besides the classical bank financing and the correlated guarantee policy, other forms of financing should be developed. This includes larger funds able to finance the huge financial needs for scale-ups. Besides, special attention should be given to alternative financial instruments. In particular, financial instruments such as the mezzanine financing might be of particular interest in regions dominated by family-owned business reluctant to open their capital. Mezzanine is quasi-equity, facilitates access to bank financing in a next round but allows the family to remain in full control of the business.

Moreover, one should not neglect the big enterprises, too often considered as a threat for the SMEs instead of a trigger for regional growth. The digitalisation reduces the comparative disadvantage towards lower costs regions. Salaries and wages in «low-cost» regions have increased over the last ten years. An active, tailor-made, reshoring policy and the setting-up of reshoring agencies could be considered as a very interesting «good value for public money» option. And finally, given that entrepreneurship is positively correlated to growth, SME policy should be converted into pure entrepreneurship policy whereby subsidies are transformed into financial instruments.

Let us recap with ten concrete growth recommendations for the regional level:

1. *Make venture capital funds bigger*: Public money should trigger – and not make reluctant – private international venture capital companies focused on high growth businesses. Therefore, public funds should have a hands-off approach and focus on private leverage.
2. *Develop Mezzanine:* Promote supply of financing by focusing on subordinated capital and other mezzanine instruments. These instruments allow external non-banking finance without losing ownership of the company.
3. *Investment readiness:* Focus on financing demand side by working on Investor readiness action.
4. *Launch a high-growth academy*: entrepreneurs willing and capable to grow and learn from one another on concrete topics such as stock management, strategic mergers, financing, HRM, etc.
5. *Networking and community:* Facilitate growth by facilitating networking amongst entrepreneur and potential investors. Informal contacts may be the best way to bridge the gap between risk-averting investors and not investment-ready investees.
6. *Clouds:* Develop clouds (on top of clusters): this interdisciplinary approach will be positive for the collaboration amongst sectors needed for future innovation. Open innovation and open clusters are the only way to develop new niches.
7. *Transmission:* Preparing the transmission in due time by promoting interim management and setting up fiscal incentives both for the investor and for the investee.
8. *Reshore:* Detect and approach companies that have offshored, partly or completely, and analyze under what conditions reshoring could be possible.
9. *Ecosystem for growers:* all actors (universities, government, trade unions, incubators, financiers) should be involved enabling an eco-community for growers.
10. *Focused entrepreneurship policy:* SME policy should be replaced by a high-growth entrepreneurship policy, without falling in the pitfall of ‘picking the winners’.

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Local roots, global markets: exploring the world of manufacturing SMEs in Gelderland, the Netherlands

This paper explores the characteristics of high-quality manufacturing SMEs in Gelderland (the Netherlands) and the challenges they face in today's digitally driven 'fourth industrial revolution'. The paper shows that, as a rule, these companies act as a kind of silent power for the region in which they are based: they have strong local roots, but thanks to their narrow focus they operate on global markets. Major concerns for the manufacturing SMEs in Gelderland are the shortage of qualified technical staff, spatial bottlenecks at the business location as well as cost and risk issues related to smart industry investments. With the help of a 'new industrial policy' that is partly aimed at correcting 'transformation failure', it is argued that regional government can give manufacturing SMEs and their localities a helping hand.

Este articulo explora las características de las pymes fabricantes de alta calidad en la provincia de Güeldres (Países Bajos) y los retos a los que se enfrentan en lo que se ha dado en llamar la 'cuarta revolución industrial digital'. Mostramos que, por regla general, estas empresas actúan como potencia silenciosa para la región en la que se ubican: tienen fuertes raíces en la localidad, pero debido a su rigurosa especialización operan y funcionan en los mercados globales. Las principales preocupaciones para las pymes de Güeldres son la escasez de personal técnico cualificado, 'cuellos de botella' espaciales en la localidad donde se establecen, además de riesgos de coste y temas relacionados con las inversiones en la industria inteligente. Con la ayuda de una 'nueva política industrial', centrada en parte en la corrección del 'fracaso de la transformación', es de suponer que el gobierno regional pueda ayudar a las pymes y a las localidades donde estas se ubican.

Artikulu honek Gelderland-en (Herbehereak) kalitate handiko fabrikatzaileak diren ETE-en ezaugarriak aztertzen ditu eta horiek dituzten «laugarren industria-iraultza digitala»-ren erronkak. Adierazi dugu, oro har, enpresa horiek isilpeko potentzia gisa jarduten dutela ezarrita dauden eskualdeetan: sustrai sendoak dituzte herrian, baina daukaten espezializazio zorrotza dela –eta merkatu globaletan dihardute. Gelderland-eko ETE-en kezka nagusiak langileria tekniko kualifikatuaren eskasia, enpresa ezartzen duten herriaren espazioagatiko itoguneak, kostuarekin lotutako arriskuak eta industria adimentsuko inbertsioekin lotutako gaiak dira. Hein batean «transformazioaren porrot»-ean arreta jartzen duen «Industria-politika berri» baten laguntzarekin, pentsatzekoa da eskualdeko gobernuak ETE-ei eta berauek kokatuta dauden udalerriei lagundu diezaiekeela.

Gert-Jan Hospers
University of Twente / Radboud University Nijmegen

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Palabras clave: fabricación, pymes, comportamiento empresarial, política industrial

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1. INTRODUCTION

The Netherlands is pre-eminently a service economy. However, outside the Randstad – the country's main urban agglomeration with cities like Amsterdam and Rotterdam – there is still a lot of manufacturing activity. Especially in the east and south of the Netherlands, the production industry is alive and kicking (Peters, 2017). For instance, the provinces of Gelderland, Overijssel, Noord-Brabant and the northern part of the province of Limburg are typical 'manufacturing regions'. The companies producing goods are not always well-known to the big public. At the same time, they are often part of the national, European or world top in a certain market niche. Take a random Dutch breakfast table on which we often can find products to which companies from towns in the Achterhoek – a peripheral region at the Dutch-German border and part of the province of Gelderland – contributed. The buns may be baked on a production line that was fabricated in Terborg (Kaak Group). There is a big change that the orange juice is packed in a 100% recyclable

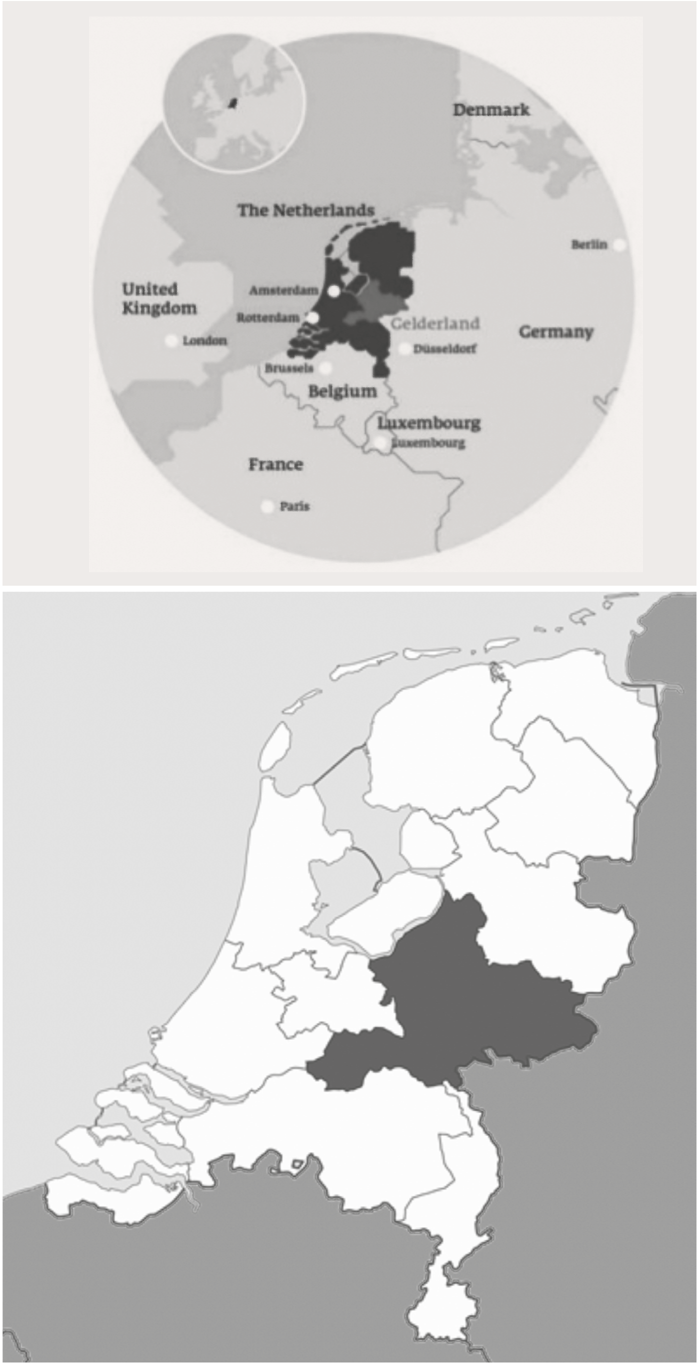
PET bottle from Lichtenvoorde (Morssinkhof Rymoplast), while the string of the bag in the tea amglass is probably from Doetinchem (rope factory Helmes-Wellink).

Following the German business economist Hermann Simon, such manufacturing companies are regularly referred to as 'hidden champions' (Simon, 2009; Rammer & Spielkamp, 2015; Venohr *et al.*, 2015). To be sure, most Dutch companies dealt with in this article do not meet Simon's ambitious definition with regard to company and market size, i.e. being either number one in the European market or part of the global top three. In Simon's terms, the firms we address cannot claim to be 'official' hidden champions – they are lower in the hierarchy. Yet, the east and south of the Netherlands have many technologically high-quality manufacturing SMEs with a large international clientele. Even if they are not incontestable market leaders in Simon's terms, they are among a small group of players operating on a narrow international niche market. In addition, they combine a strategy of specialisation with a high degree of innovativeness, while their business is often family-owned and managed (Schlepphorst *et al.*, 2016). From this perspective, they have characteristics that resemble those of the 'real' hidden champions. In other words, we define the firms in qualtitative rather than quantitative terms, as we often see in the scarce research that has been done in this field (cf. Voudouris *et al.*, 2000; Yoon, 2013; Rammer & Spielkamp, 2015).

According to several studies on the German situation (Block & Spiegel, 2011; Audretsch & Lehmann, 2016; Berlemann & Jahn, 2016), firms with 'hidden champions'-characteristics – in German often referred to with the broader term *Mittelstand* – are important drivers of innovation and economic development of the localities in which they are located. For example, based on an empirical analysis of German regions, Berlemann and Jahn (2016, p. 1829) conclude that '…regions with a high share of Mittelstand firms are found to generate more patent applications than comparable regions with less owner-managed SMEs'. For their local surroundings, these international players form a kind of silent power, because they take care of economic growth, jobs, and innovation. The firms are usually not settled at a certain spot by accident. This is especially true for family firms: their history goes often back decades, sometimes centuries. Because of their roots, the industrial firms are often strongly embedded in their regional context and have built up strong local social networks (Block & Spiegel, 2011; Kemeny *et al.*, 2015); for example, they collaborate with regional suppliers and educational institutions or sponsor the local soccer team.

In this article we focus on the Dutch province of Gelderland as a relevant context to explore the characteristics of international market leaders and their importance for the area in which they are based. With approximately 2 million residents Gelderland is the largest province of the Netherlands, situated in the country's eastern part, bordering with Germany (see Figure 1). *What makes the manufacturing companies in this part of the country so special and what regional impact do they have? What obstacles do they generally face? What could help them? What can government parties possibly do to support them?*

Figure 1. **GELDERLAND IN RELATION TO NORTH-WESTERN EUROPE**



Source: «How to anchor thematic cluster in urban ecosystems», Presentation at the 19th TCI Global Conference 'Global Changes' in Eindhoven, the Netherlands, 8-10 November 2016 by Michiel Scheffer, Vice Governor of the Province of Gelderland, the Netherlands.

These are issues that the present article addresses on the basis of a regional case study. The article is qualitative, essayistic and anecdotal in nature and therefore contains anything but definitive answers. Through a glimpse into company practice in the province of Gelderland, we hope to find relevant business characteristics, crucial issues and action points for policy. The aim is to give an impression of this branch of the regional economy based on a qualitative analysis of the manufacturing industry. In addition to the general literature on firms with 'hidden champions'-features, we base this article on analyses, reports and papers about Gelderland's manufacturing industry. Next to the desk research, the article reports on empirical findings generated by means of an interview round that was held between 2016 and 2017 among 15 manufacturing SMEs based in Gelderland (see Appendix 1).

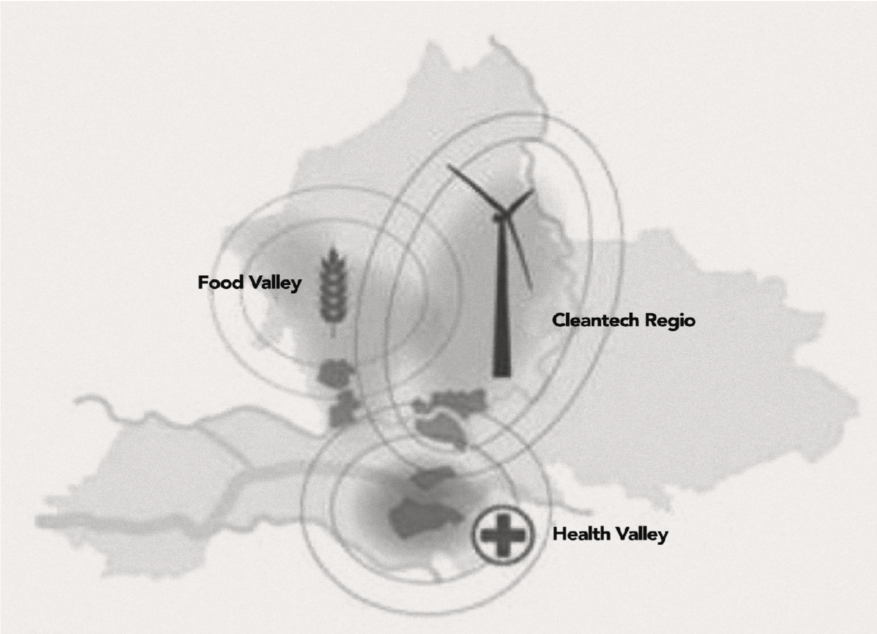
2. MANUFACTURING WITH A MISSION

In the Netherlands, manufacturing is more important than is often assumed. The share of industrial employment between 2012 and 2017 was around 10% and the share of manufacturing in GDP around 12%, according to figures of Statistics Netherlands (CBS Statline, 2017). However, in the public debate, there is sometimes the impression that manufacturing activity in an 'expensive' West-European country like the Netherlands can be better outsourced to low-wage countries. That is a misrepresentation: the production industry is still the cork of the Dutch economy. In addition to the job engine, the industrial sector is an important 'Dutch business card' abroad: 58% of Dutch industrial sales are destined for export (Peters, 2017). The indirect effects of manufacturing are also of great importance. Innovations in this sector – whether it is information, sensor or biotechnology – find their way into agriculture and services. Moreover, many service companies (e.g. transport companies, consultancy and communication agencies) depend on orders from the production sector. After the economic crisis since 2008 and the uncertainties this entailed, the Dutch industry and industrial employment are doing well again.

In short, manufacturing in the Netherlands stands for jobs, added value, and innovation. The new Dutch cabinet – in office since 2017 – is clearly aware of this. In the coalition agreement 2017-2021, the Dutch manufacturing industry is seen as an ally in climate adaptation and energy transition. Rightly so, because as a major consumer of resources, there are plenty of opportunities in the industry for sustainability, clean technology and the circular economy. The new government opts for 'innovation with a mission' and pursues an industrial policy with a focus on the 'major societal challenges' of our time, such as energy transition, agriculture, water and food, as well as technologies of the future (VVD, CDA, D66 & ChristenUnie, 2017). Within the Netherlands, the province of Gelderland is a prime example of this 'innovation with a mission'. Whether it concerns top research in the field of health, energy and food, one will soon end up in this province with its well-developed production and knowledge infrastructure. Even though Gelderland has a strong base in these fields, long term investments in the business climate remain necessary in view of the fierce international competition that regions are exposed to (Atzema *et al.*, 2017).

Dominant clusters of manufacturing SMEs in Gelderland aimed at solving ‘major societal challenges’ can be found in the field of food, health and energy (clean technology) (see Figure 2). In Food Valley and the North of Veluwe, for example, we find companies in international agriculture and horticulture, such as De Heus Animal Nutrition (Ede), ABZ Diervoeding (Nijkerk) and Ridder Drive Systems (Harderwijk). Research at Wageningen University is leading and has produced many innovative spin-off companies. In the Achterhoek and Arnhem-Nijmegen (the latter being the main urban agglomeration of the province), there is a lot of knowledge in the field of energy and water: Nijhuis Water Technology (Doetinchem), Fairbanks Nijhuis (Winterswijk) and Eijkelkamp Soil & Water (Giesbeek) are active worldwide. And manufacturing companies focused on health are not only located in Arnhem and Nijmegen, but also in Rivierenland (a region including ‘the Betuwe’, well-known for its fruit production), such as Wassenburg Medical (Dodewaard) and ArjoHuntleigh (Tiel). Despite the focus on food, health and energy, we conclude that the Gelderland industry is very heterogeneous and diverse in character. Most entrepreneurs have little interest to participate in an artificially made ‘cluster’ as identified by governments; they follow their passion, know the market and innovate with their staff.

Figure 2. **CONCENTRATION OF KNOWLEDGE & ACTIVITY**



Source: «How to anchor thematic cluster in urban ecosystems», Presentation at the 19th TCI Global Conference ‘Global Changes’ in Eindhoven, the Netherlands, 8-10 November 2016 by Michiel Scheffer, Vice Governor of the Province of Gelderland, the Netherlands.

Against this background, it is not surprising that the Gelderland manufacturing industry considers sustainability to be of paramount importance. Take the modern paper mills around Apeldoorn: they are among the most environmentally friendly companies in their industry worldwide. Entrepreneurs from Gelderland do not surf with the latest trends in the business sector but build on their years of tradition. They have an eye for their environment, their staff and the human dimension. Perhaps that has something to do with the small-scale geography and the varied landscape of Gelderland. The province is a territory that consists of a diversity of places within which the inhabitants organize their daily life. The province does not have big cities (with 170,000 inhabitants, Nijmegen is the largest city in a province with slightly more than 2 million inhabitants), while the countryside is never far away. Sustainability, responsible company behavior and doing something back for the community are part of it. In the Veluwe, the protestant faith may play a role, in a rural region like the Achterhoek, the so-called 'neighbor's help'. And in some cities, like Zutphen and Doesburg, the network and trade mentality from the Hanseatic period may still have an influence in the way people are working and doing business. Whatever the case, Gelderland companies do not just make something – they make it with a mission.

3. MANUFACTURING SMES IN GELDERLAND

Let us look at some relevant facts and figures now. The manufacturing sector in Gelderland consists of about 8,000 companies that together account for around 100,000 jobs, representing some 11% of the regional employment. The firms represent an added value of 8.234 million euros, which amounts to 13% of the Gelderland GDP (PWE-Gelderland, 2016). Over the past decades, this share has steadily declined, but it has remained stable over the past five years and has even grown slightly. For example, in 2016, a third of the Gelderland job growth came from the industry (PWE-Gelderland, 2016). This trend is in line with the general rule that manufacturing is a sector showing resilience and dynamism.

The Gelderland manufacturing industry has a high-quality character and generates great spillover effects: thanks to supply and delivery relationships, the production companies provide 0.9 jobs elsewhere in the province. The food industry, metal production and machinery are the most important sectors (Dankbaar *et al.*, 2014). Together they form 44% of the manufacturing jobs in Gelderland. The food industry and machine production, together with the textile industry, are also the fastest growing industries in terms of employment creation (PWE-Gelderland, 2016). Looking at the added value, the food industry, technology industry and metal production are the largest sectors. Together, they account for 60% of industrial added value. Moreover, a large academic study showed that even during the recent crisis the added value of Gelderland's technological manufacturing industry increased by almost 1.5% per year (Atzema *et al.*, 2017).

To be sure, the strength of Gelderland manufacturing stands or falls with the companies that are part of it: most of them are SMEs and not well-known to the general public. As a rule, one can say that some firms are at the forefront (the ‘front runners’), while others are more trend-following (the ‘followers’) or have difficulty in keeping up with new sectoral developments (the ‘laggards’) (cf. Rogers, 1983). In this article, we focus primarily on the leaders and followers, not only because they form the majority of the Gelderland manufacturing industry, but also because this group has an exemplary function for the firms lagging behind. Of the 100 most successful Dutch manufacturing companies with a turnover of fewer than 500 million euros, according to business magazine *Management Team*, no less than 18 are located in Gelderland (Peters, 2017). The list consists of companies with the highest scores on four criteria over the past five years, i.e. firm performance in terms of turnover, revenue growth, profit growth and return on investment. Looking at the 18 firms in more detail, it is striking how diverse they are. For instance, the companies produce printing presses (MSP Systems in Arnhem), interiors for luxury yachts (Heesen Yachts in Winterswijk) or pigments to color plastic materials (Holland Colors in Apeldoorn).

There is a good reason that the Gelderland manufacturing industry is so diverse: many companies are so specialized, that they have little real competitors (cf. Vermeylen, 2014). They are champions in their branch and thanks to that narrow focus, customers from far and wide know where to find them (Kamp, 2017). Some random examples from Gelderland: there are firms that have focused on shock absorbers for racing vehicles (Reiger Suspension in Hengelo), customized contact lenses (Procornea in Eerbeek) and mobile weighing systems for hand pallet trucks, warehouse trucks and forklift trucks (RAVAS in Zaltbommel). For these companies the motto ‘who chooses, will be chosen’ certainly applies and pays off. The management of these SMEs, in which the founder and his or her family often participate, knows how to convey the passion for the company to the employees. Staff turnover is therefore low. The firms do not make a quick profit but focus on the long term. They often have loyal customers, with whom they maintain close contacts. Many companies innovate together with their customers, sometimes even at the client’s location itself, thus benefitting from proximity effects (Torre & Rallet, 2005; Coe & Young, 2015). For example, Alewijnse from Nijmegen, which provides electrical systems for shipbuilding, has taken this so-called ‘follow-your-customer principle’ literally: since 1992, the company has a branch in Romania thanks to a customer that comes from there (Peters, 2016).

Dankbaar *et al.* (2014) distinguish four types of manufacturing companies within Gelderland’s industry. It is a useful classification, because it shows how diverse the competencies and challenges of the manufacturing SMEs are:

- *Material workers/processors.* Companies from this group focus on transforming materials, such as metal or plastic. An example is 247TailorSteel from the village of Varsseveld, a company that can quickly cut steel and pipes to size. Through the online assistant SOPHIA (Sophisticated Intelligent Analyzer), customers can pass on their personalized orders 24 hours a day, 7 days a week, without human intervention. For such firms, efficiency, far-reaching automation and 'servitization' (the shift from production to service provision to the customer) are becoming increasingly important.

- *Process specialists.* These are companies that excel in efficient design and control of production processes. Illustrative is the paper and packaging industry with companies such as Royal Van der Most in Heerde (producing 6 million envelopes a day) and Solidpack in Loenen. Falling margins and strict environmental requirements force these companies to increase their scale and invest in continuous innovation. These companies often lead the way in terms of sustainability, energy saving and circular economy.
- *Assemblers*. These companies make composite products from components that they largely purchased elsewhere. They are always faced with the question of whether they have parts made by themselves, nearby, in Europe or even further away, in low-wage countries. Thanks to robotisation and automation, it becomes profitable again to recover part of the production, a trend known as 'reshoring'. Take cycle manufacturer Gazelle in Dieren that no longer outsources the production of bicycle frames to China, but to Portugal.
- *Integrators*. In qualitative terms, these firms come very close to the characteristics of the small group of 'hidden champions' that Simon (2009) identified. As a rule, integrators opt for focus, specialization and innovation and do a lot in-house (vertical integration), because then they know for certain that things are going well. They know the customer like no other and do not define their market niche in terms of 'products', but of 'solutions'. For example, industrial circular saw producer Kinkelder from Zevenaar delivers worldwide 'metal solutions' rather than 'circular saws'. Also some of the firms mentioned before in this article are typical 'integrators', like Kaak Group (industrial bakery equipment technology), Ridder Drive Systems (electromechanical driving systems for agriculture and horticulture), MSP Systems (printing presses) and RAVAS (mobile weighing systems for trucks). The downside of the hyperspecialization strategy of these firms is that it is hard for integrators to just go into new markets or products. This makes the companies dependent and vulnerable.

4. CHALLENGES FOR MANUFACTURING SMES IN GELDERLAND

The manufacturing SMEs in Gelderland may be regionally anchored, they also have to deal with challenges. This applies not only to the front-runners, but equally to the followers and those who stay behind. The markets in which companies operate are changing fast, so that entrepreneurs must be constantly on their guard and always have to think a few steps ahead. To be sure, this dynamic context applies for all manufacturing companies. For example, there is a development that is referred to as 'the fourth industrial revolution' or 'smart industry' (Dankbaar, 2015; Sol, 2016; Schwab, 2017). After power, electricity and automation, digitization now forms the driving force behind Western industrial development, providing new ways of communicating and working. Devices that are connected with each other via the web ('the Internet of Things'), robots that assemble components and 3D printers that make custom-made tools are increasingly important.

Smart production is particularly relevant for companies that have to respond quickly to market demands (Van Agtmael & Bakker, 2016). Thanks to smart industry solutions, mass customization is possible. Instead of bulk production, there is room for production in small quantities and adapted to specific customer requirements. For example, wheelbarrow producer Altrad Fort from the town of Tiel no longer produces only green wheelbarrows, but also wheelbarrows in other colors. However, for many companies the costs of future-oriented production methods such as robotics, 3D printing and the Internet of Things are still too high to invest in haphazardly. Moreover, smart industry has a large impact on the workplace: it requires programming and digital skills from employees as well as social skills. Smart production asks for teamwork, knowledge sharing and creativity. Employees should be open to innovation and have the will to constantly learn.

In addition to the smart industry challenges that more or less apply for all manufacturing companies in the Western world, there are some specific bottlenecks in Gelderland. Volberda and Heij (2017) note that companies in the eastern Netherlands score above average in terms of the degree of digitization. But when it comes to social innovation, SMEs in this part of the country belong to the middle. For instance, 'self-organization' – the alternative organization of innovation activities on the work floor – is still relatively limited in the case of Gelderland's business community. Co-creation with knowledge suppliers outside the firm can also be improved. This is worrying because social innovation is an important source of competitiveness. Volderda and Heij advise companies therefore to invest in creative skills of their employees on the one hand and 'open innovation' on the other. In short, the social side of smart industry deserves attention in Gelderland.

In addition, some production companies in Gelderland are faced with bottlenecks that stand in the way of further development. If governments want to help, they must have a good view of what is happening in the sector, as Dankbaar *et al.* (2014) already stated some years ago. To find out what Gelderland manufacturing companies are concerned about, we have analysed interviews from the media (articles retrieved in professional magazines and newspapers) with representatives of the companies concerned and in addition to this, in 2016 and 2017, we held an interview round among 15 companies throughout the region. Based on the secondary analysis and the company tour a clear picture emerges. In what follows, we provide an overview of the most important challenges for manufacturing SMEs in Gelderland.

1) ***Shortage of technical staff***

The growing need for qualified technical staff is a major issue for manufacturing companies at all levels. Often the focus is on higher education graduates, but people with intermediate vocational education are certainly so important. Manufacturing SMEs usually have more work than people. Not only do relatively few young Dutch people choose technology, in the coming years many baby boomers will also retire at companies – and that while the order portfolios of the companies increase. It is true that technology campaigns have an effect, but especially for pre-university students. In the Netherlands, only 23% of the students from higher general secondary schools choose a technical follow-up program (43% of the pre-university students) (Krijnsen, 2017). Moreover, many companies need well-trained and experienced technicians now. However, there is an image problem around manufacturing, even though working in a factory implies nowadays having a job with ‘a good salary, overtime that is paid 125% and working in an environment that is clean and not noisy’, as the manager from a manufacturing firm in Rivierenland puts it. People with a technical higher vocational and higher professional education degree in mechanical engineering and electrical engineering are wanted. Also for software developers, process engineers and service engineers, there are plenty of job opportunities.

2) ***Mismatch between supply and demand***

If Gelderland companies already come into contact with young graduates, then the obtained diploma is not always a success guarantee. The program often does not match the required competencies. Or in the words of an entrepreneur from the Achterhoek: ‘Then suddenly it turns out that the young people have had lessons from a book from the nineties, while the industry has changed completely in the meantime’. Some manufacturing SMEs respond with a sound internal training. Take AFP from Apeldoorn, a world player in the production of high-quality plastic film, which largely educates its employees itself, both in production and in R&D. The positive side-effect of education in the workplace is that the bond with the company is increased. Other companies are looking for collaboration with knowledge providers within Gelderland. For example, vibratory filler manufacturer Radine from Barneveld has a lot of contact with local educational institutes. At Industry park Kleefse Waard in Arnhem there is a triple helix-arrangement (an alliance between parties from regional business, government and education) to prepare the installation technicians of the future. Nevertheless, the mismatch between supply and demand remains a frequently mentioned problem. On the one hand, educational curricula cannot simply be changed and it is difficult to motivate teachers of intermediate vocational education to do so. On the other hand, manufacturing SMEs are demanding due to the nature of their business: they are so specialized that they are always looking for the proverbial ‘sheep with five legs’.

3) ***Spatial bottlenecks at the business location***

Many manufacturing companies in Gelderland are doing so well that they have growth plans. To materialize their growth potential, they literally need space, i.e. space to expand the existing production facilities. The problem is that this is not always possible: the local zoning plan has to be changed, the parties involved do not cooperate or local residents are bothering. Entrepreneurs often have little understanding for this – especially local government is often criticized. 'We are providing work, why are they acting so difficult?', is a common complaint. Apart from the lack of opportunities to expand, there are other bottlenecks at the business location. Digital accessibility is regularly mentioned as well. It is hard to imagine, but there are still high-quality Gelderland manufacturing SMEs that do not have optical fiber internet. We see this mainly in the countryside, but sometimes also in locations where you would not expect it. Brink BV in Harskamp makes molds and advanced automation systems for the packaging industry (e.g. machines for the production of yoghurt cups), but still lacks fast internet. The same applies to Van Drenth Buighout in Culemborg, specialist in the field of woodworking and furniture production. The companies are now considering installing optical fiber themselves.

4) ***High investment costs***

Some of the Gelderland manufacturing SMEs still have doubts about the use of smart industry in the production process. They know that in the long run they will probably not be able to ignore robots and 3D printers – investments in the 'fourth industrial revolution' have to be made at some point. But when do they have to start? And what consequences does this smart technology have for the company? How do they get the staff on the work floor to accept the change? 'We will have no choice when, in a while, multiple older employees retire and we are unable to find new employees', says an entrepreneur about this defensively. In addition to the initial hesitation, the substantial investment costs in new machines, digital equipment and the necessary skills also play a role. Many banks are reluctant to finance plans despite the revival of the economy, even though they are well-founded. Certain family businesses, apart from the bank where they have been doing business for years, usually do not go beyond the well-known circle of 'friends, family and fools' (Peters, 2016). Nevertheless, there are numerous alternative sources of finance, such as participation and development companies and informal investors. Peer-to-peer lending, in which investors invest in companies by lending them money, is also an option. But those possibilities are not always known by entrepreneurs. Also the opportunities of facility sharing and field labs (think of an advanced 3D printer, which several companies from the region can use) are not yet fully exploited (Yoo, 2017).

5) ***Increase of the risks***

A disadvantage of smart industry is that companies become more vulnerable to cybercrime. By linking production with the Internet of Things, a firm also runs a greater risk of being 'held hostage' by internet criminals. Several Gelderlander manufacturing companies indicate that they have suffered from ransomware: their internal computer network was shut down by hackers and only functioned again after payment of ransom. 'Then you notice how vulnerable we are as a company', according to an interviewed entrepreneur. For a firm that can mean a large cost item. In addition to money, it costs a company time, stress and – if the captured digital data comes to the streets – damage to the image. But not only the digital world is causing an increase in risks in the manufacturing industry. Safety in the workplace is also considered a challenge by manufacturing companies. Reducing business cases is high on their priority list. Many companies also say they are concerned about the liability risk (the chance of claims from customers, because a delivery does not fully meet the requirements). In the interview round in Gelderland, 'safety' and 'liability' have in any case been mentioned by entrepreneurs from manufacturing SMEs several times.

5. WHAT COULD HELP MANUFACTURING SMES?

As a matter of fact, Gelderland manufacturing companies have serious challenges to deal with. Some themes, such as the risks of cybercrime, lie primarily with the business community itself, while addressing other issues (for example bottlenecks at the business location) obviously requires the contribution from other parties. Governments, educational institutions or other stakeholders in the region can offer a helping hand here. Before the question comes up about what the government could do, it is important to point out the most promising actions. They can be summarized in the keywords 'recruiting', 'learning', 'sharing' and 'networking'. They are explained below.

1) ***Recruiting: talent wanted!***

Manufacturing SMEs in Gelderland are excitedly waiting for technical staff. Entrepreneurs must make every effort to find the right people and to bind them to their company. Technology company Nedap from Groenlo, for example, is at popular Dutch music festivals like 'Lowlands' and the 'Zwarte Cross' to get in touch with young talent, while also sponsoring university business days. The companies Kranendonk (manufacturer of robotic arms), Defenture (builder of military vehicles) and Itho Daalderop (specialist in the field of indoor climate systems) from Tiel collaborate with higher and local secondary schools to interest students in technology and production. With excursions, guest lectures and internships, the companies show young people what it means to work in a modern factory. The recruitment does not only have to focus on young people. Side entrants from a completely different direction, even non-technical, are also an interesting target group. Because it must be possible to teach an unemployed caretaker or secretary how to operate a robot. Dankbaar and Mosterd (2017) put it in *Het Financieele Dagblad* like this: 'There is a shortage of technically trained staff, but no shortage of technical talent!'.

2) ***Learning: social innovation***

The smart technology that goes with the 'fourth industrial revolution' requires specific skills, for both new and existing employees. To learn those skills, companies increasingly train their staff in-house. For example, at industrial circular saw producer Kinkelder (Zevenaar), a teacher schools and trains employees on location. And because high-tech is increasingly accompanied by human touch, such as teamwork and creativity, it also involves knowledge of processes (for example Lean and QRM methods) and other aspects of social innovation. Interesting in this respect are the so-called 'Innovation Hubs' in Gelderland, a project in which companies and education institutions have joined forces. These hubs are 'learning circles' of groups of students who research innovation questions from the regional business community. The participating firms learn from the look from the outside, while the youngsters get a look in the business. Kitchen manufacturer Bribus, printing company Enveloprint, metal mesh weavers Dinxperlo and glue manufacturer SABA, for instance, collaborate in the hub 'Inno-Dinx'. Manufacturing companies do well not only to see the workplace as a production space, but also as a learning environment. In a work context, employees learn more and faster than in a classroom.

3) ***Sharing: getting started together***

The Innovation Hubs indicate how valuable knowledge sharing and collaboration can be in the Gelderland manufacturing industry. In the field of smart production, there are many more opportunities for synergy. Some manufacturing SMEs are still struggling with the question of how and when they should work with smart industry. Why reinvent the wheel yourself, while colleagues around the corner are already busy with it? Although every firm has specific challenges in terms of content, numerous process-related questions are cross-company. These issues can be explored together, for example in a field lab in which entrepreneurs and educational institutions from nearby collectively learn and experiment. The smart bending factory in Varsseveld is an example of such a 'pilot plant': steel companies, training institutes and other regional stakeholders jointly explore the future of metalworking here. It may also be useful around other themes to get together. There is, however, the impression that interfirm cooperation differs within Gelderland. In the sub-region Achterhoek for example, joint action is more obvious than in the Food Valley, where many companies seem to see each other more as a competitor than as a colleague.

4) ***Networking: beyond the company walls***

Dankbaar *et al.* (2014) advise to focus on further networking in the Gelderland manufacturing industry: where contacts do not come about automatically, they must be actively encouraged. In this context, the province of Gelderland organizes roundtable discussions between entrepreneurs and policy officials. Such sessions can indeed lead to knowledge exchange, mutual understanding and trust, just as networks between companies within and outside the region are a breeding ground for innovation and internationalization. The advice to focus on networks is even more relevant than a few years ago. Manufacturing SMEs from Gelderland are traditionally used to operate independently for the benefit of customers who are sometimes settled at the other end of the world. But the solution of their problems comes increasingly from outside the company walls: the professional recruitment of personnel, social innovation and experimenting with smart industry requires joint action, just like expanding the business location or taking action cybercrime. Linking the Gelderland industry with other relevant parties within and outside the region is crucial.

6. TOWARDS A 'NEW INDUSTRIAL POLICY'

Does the government, as guardian of the general interest, have a task in the four actions that help the Gelderland industry? And if so, what could they do? This brings us to the field of industrial policy, whether or not at regional level. For many, the term 'industrial policy' is synonymous with a series of failures, such as state aid to Dutch shipbuilding and strategies to make yet another Silicon Valley out of the blue. Over the years it has become clear that a policy of picking winners (subsidizing successful companies) does not work, just like backing losers (supporting loss-making companies) (Hospers, 2001). The influence of government on the manufacturing industry is limited and can only be modest.

At the same time, we know that government intervention can indeed lift a region to a higher level. In the Dutch Brainport region, triple helix-cooperation between government, education and entrepreneurs has ensured that Eindhoven has grown from a gray company town into an innovation hotspot. The long-term policy in Baden-Württemberg focused on industry and innovation, the so-called *Standortpolitik*, has also borne fruit. In fact, experts even consider the 'location politics' of the federal state as one of the secrets of the German economy (Audretsch & Lehmann, 2016). But still, here, the government adheres to market developments. Only where the market cannot solve these problems itself ('market failure') or where the regional innovation system does not function optimally ('system failure') there is room for corrective or supplementary policy, according to the classical view.

Interestingly, in recent years researchers have increasingly argued for a more active government role in the field of industrial development. The reason for this is the major societal challenges facing our world, such as climate change and food security. We cannot expect from firms that they bring about the transformations alone – the complexity of the tasks is too great for that. With this 'transformation failure', the government comes into the picture as a supporter and a booster (Frenken & Hekkert, 2017). Examples of problems arising from the grand societal challenges are unfamiliarity with the tasks, lack of learning ability, lack of a guiding vision and lack of urgency. Applied to the manufacturing industry, for example, the government can try to prepare companies for the fourth industrial revolution. And as an independent party that has an eye for the long term, the state can sketch perspectives, define frameworks and lay out lines. For instance, Mazzucato (2013) shows that an 'entrepreneurial government' can ensure that industry and innovation development can go in the desired direction (e.g. around themes like sustainability). It brings economists such as Janssen et al. (2017) to propose a 'new industrial policy'.

To explain this new industrial policy, Janssen *et al.* (2017) use the 'Scrabble metaphor'. Economic innovation, according to Hidalgo and Hausmann (2009), is comparable to a game of Scrabble. Players are countries or regions that compete for profit, in this case, economic growth. The 'letters' that companies have in the game stand for their competencies and the 'words' to be laid for new products and services. The more letters the players have, the more new words can be formed. And the more unique the available letters, the higher the potential 'word value' and the greater the chance of winning the game. In this way, industrial policy should focus on increasing the 'vocabulary' (read: competencies) of companies. Furthermore, the policy should train entrepreneurs in the skills they need to achieve a higher 'word value' (read: innovations). In other words, industrial policy must challenge the market to become better Scrabble players. The aim of the policy is to combine the knowledge and skills of companies from different sectors in such a way that the chance of socially relevant innovations is increased. In sum, there is a good reason for government to support manufacturing SMEs in one way or another.

7. ROLE OF THE REGIONAL GOVERNMENT

When it comes to the development of the manufacturing industry – as in the case of Gelderland – the regional government is pre-eminently the party for shaping the 'new industrial policy' we discussed above. Unlike the EU and central government, local authorities are best informed of the particularities of a certain place. The trump card of regional government with regard to a municipality is that it operates in a supra-local way. In theory, therefore, this party is able to provide promising connections. What could a regional government (in the Dutch administrative system: the provincial government or simply 'province') do in a more general sense? In industrial development at least four useful roles can be identified: the province can create preconditions (facilitate), bring parties together (connect), drive innovations (invest) and take promotional measures (promote).

Facilitation involves the creation of preconditions under which manufacturing SMEs can develop optimally. The term 'business climate' is crucial for this: the region must remain attractive as a business location, in the field of economy, work and living. This does not only concern the primary conditions companies often insist on, such as favorable physical and digital accessibility, modern work locations and a government that thinks along with entrepreneurs who want to expand their business. Due to the 'war on talent' between regions, also 'secondary employment conditions' gain in importance. Potential employees are increasingly looking at the living environment (Florida, 2005). When a region connects with their wishes, then they want to live there and possibly also work. With its green environment and an eye for the human dimension, there are opportunities for Gelderland here. But also good educational, cultural and hospitality facilities in the region are important. Of course, the provincial government can not just take care of this. However, it is important to note that a policy aimed at regional industrial development is not limited to the economy alone (Raspe *et al.*, 2017). Making connections with other regional dossiers, such as living conditions, culture and landscape, is therefore obvious.

In addition to facilitating, connecting is an important role for the province. Because of their specific business and full order book, manufacturing SMEs are often in their own bubble. Although the companies are embedded in their local environment, they often lack the time to explore opportunities nearby, for example in the field of knowledge development, supply and outsourcing. Linking companies around a new technology (such as 3D printing) or otherwise is promising, especially since radical renewal often comes from unrelated but specialized knowledge. Janssen *et al.* (2017) therefore argue for a policy of 'cross-specialization': 'This is not just a question of brokering, but requires an interactive process in which apparently unrelated companies discover how the combination of their abilities can lead to fundamental renewal' (own translation from Dutch). In short: companies and other actors who do not know each other can create promising Schumpeterian 'new combinations' (Hospers, 2001). The regional government, in this case the province of Gelderland, could create this interaction in (temporary) platforms in which parties from various sectors come together around a breakthrough technology or grand societal challenge.

The regional government can also co-invest in the future of the manufacturing industry. Such a guiding role can be justified from the idea of 'transformation failure': the industry is in such a process of revolution that the government cannot simply leave it to the companies themselves (Frenken & Hekkert, 2017). In this case, a more active, even directional government role makes sense. It is important to pay attention to factors that are not necessarily associated with manufacturing itself. For smart industry is not just about technology and production, but also about soft skills, such as being open to innovation, self-organization and other creative skills. For example, the government can, together with regional education, set up a course or training on 'skills for the 21st century' where manufacturing companies can send their employees to. Investing in the set-up and organization of physical spaces within the region where companies can experiment with educational institutions in the field of smart industry is also possible. These 'pilot factories' are intended as a laboratory for the 'fourth industrial revolution'. Financial participation from government in such research, training and production facilities can be justified.

Finally, the regional government can play a role in the branding of the manufacturing industry. It is not about giving publicity to individual companies, but about emphasizing shared business characteristics, such as the combination of local roots and global markets. For example, branding of the Gelderland region as a manufacturing province is not a luxury, because the local manufacturing SMEs regard the shortage of technical staff as the key problem. That is why the regional government is doing well to explore how branding, storytelling and other promotional measures can improve the image of the province of Gelderland – or its sub-regions – as a business location for companies and talents who want to 'innovate with a mission'. The profiling of industrial activity within Gelderland itself is certainly so important. For how can a young person from a Gelderland provincial town become enthusiastic about a career at a firm around the corner if he does not even know it exists? Paradoxically, the manufacturing SMEs in Gelderland are well-known to their global customers, but now it is time that they profile themselves locally.

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APPENDIX 1

Manufacturing SMEs in Gelderland that were consulted and interviewed in 2016 and 2017 (company name, location, business activity)

Altrad Fort (Tiel) – wheelbarrows and construction equipment

Avantes (Apeldoorn) – fiber optic spectroscopy

AWL-Techniek (Harderwijk) – joining technology (interview by Piet Renooy, Regioplan)

Brink BV (Harskamp) – moulds and automation

Coldenhove Papier (Eerbeek) – paper production

Interface (Scherpenzeel) – commercial modular carpet tiles

Jansen Poultry Equipment (Barneveld) – poultry housing systems

Kaak Groep (Terborg) – industrial bakery equipment technology

Kinkelder (Zevenaar) – industrial circular saws

Koninklijke Gazelle (Dieren) – bicycles and e-bikes

Metaalmorfose (Hattem) **–** specialized metal products

Rosti Mepal (Lochem) – plastic consumer products

Stooff Interior Projects (Eibergen) – furniture production

Synthon (Nijmegen) – high-quality pharmaceuticals

Van Drenth Buighout (Culemborg) – furniture production

La especialización inteligente impulsa la globalización de pequeñas y medianas empresas en la región finlandesa de Ostrobotnia

Smart specialization driving globalization of small and middle-sized companies in the Finnish region of Ostrobothnia

Este artículo destaca los cinco retos del aprendizaje de la Especialización inteligente: (1) una gobernanza regional que cree prioridades, más allá de la mera distribución de los recursos; (2) unos esfuerzos dirigidos hacia la evolución conjunta entre análisis, colaboración y las partes interesadas que integran el plan de trabajo; (3) el aprendizaje transnacional que apoye al aprendizaje regional; (4) un manejo de la complejidad y la dinámica del ecosistema de innovación de descubrimiento empresarial y el enfoque en las partes interesadas y en las relaciones pertinentes; y (5) una gobernanza de múltiples niveles y en relación con las políticas nacionales. Este aprendizaje ha llevado a una nueva comprensión de los retos del sistema de innovación regional, y a una estrategia inteligente. En dicha estrategia las pequeñas y medianas empresas se erigen protagonistas para la diversificación de la base regional de exportación. Asimismo, establecer instrumentos de políticas que fomenten la conectividad regional y construir nuevas cadenas de valor orientadas a la exportación, donde se permita a las pyme colaborar con grandes empresas, constituyen los resultados clave de la estrategia.

Artikulu honek Espezializazio Adimentsuaren ikasketaren bost erronkak azpimarratzen ditu: 1) eskualde-gobernantzak lehentasunak erabaki, baliabideen banaketa baino gehiago egin behar du. 2) lanak analisiaren, lankidetzaren eta lan-planen integrazioaren arteko eboluzio bateratu batera jo; 3) eskualdeko ikasketak beste eskualde batzuen nazioarteko ikasketatik onurak atera; 4) enpresen arteko aurkikunde ekosistema-berrikuntzaren dinamika eta konplexatusuna kudeatu. Are gehiago, parte-interesatuetan eta inguruko erlazioetan aztertu; eta 5) maila eta politika nazionalekin lotutako elkarreragin anitzeko gobernantza. Ikasketa prozesu horrek eskualdeko berrikuntza sistema ulertzeko era berri bat ekarri du. Baita ere, estrategia adimentsu bat. Bertan, enpresa txikiak eta ertainak eskualdeko oinarri esportatzailearen dibertsifikazioaren protagonista direla jotzen da. Are gehiago, estrategiaren emaitza nagusiak dira ETE-ei enpresa handiekin era puntual batean lankidetzan aritzea ahalbidetuko dizkien, eta eskualdeko konektibitatea eta esportaziora bideratutako balio-kate berriak eraikitzea sustatuko dituzten politiken tresnak ezartzea.

The article highlights five challenges in learning Smart Specialization: 1) regional governance needs to establish priorities, going beyond only distributing money; 2) the strive for co-evolution between analysis, partnering and integrating stakeholders into work plans; 3) transnational learning in support of regional learning; 4) dealing with complexity and dynamics surrounding the entrepreneurial discovery process and the innovation ecosystem with relevant stakeholders and partner relations; 5) managing multi-level governance and interactions with national policies. This learning has led to a new understanding of the challenges of the regional innovation ecosystem, and a smart strategy. In this strategy small and medium sized businesses are seen as core actors in diversifying the regional export base. Furthermore, establishing policy instruments fostering regional connectivity and building new export-oriented value chains, where SMEs are enabled to collaborate with focal large enterprises constitute key outcomes of the strategy.

Jerker Johnson
Johanna Dahl
Regional Council of Ostrobothnia
Åge Mariussen
Department of Regional Studies
University of Vaasa

Índice

Palabras clave: especialización inteligente, proceso de descubrimiento empresarial, internacionalización, pequeñas y medianas empresas (PYMEs), aprendizaje transnacional

Key words: smart specialization, entrepreneurial discovery process, internationalization, small and mid-sized companies, transnational learning

Nº de clasificación JEL: D21, D83, L26

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1. INTRODUCCIÓN

La región de Ostrobotnia, en la costa oeste de Finlandia, tiene una economía pequeña y abierta que se ha visto fuertemente influenciada por la globalización debido a su gran propensión a la exportación. Actualmente, si miramos por ejemplo al clúster de energía de Vaasa[1], se exporta alrededor del 70% del valor bruto de su producción. Los mayores exportadores han posibilitado que otras empresas de la región, que actúan como proveedores con una posición 'aguas abajo' en la cadena de valor, se conviertan también en exportadores notables, haciendo de Ostrobotnia uno de los ejecutores económicos regionales más destacados de Finlandia. Por consiguiente, mantener una competitividad internacional resulta crucial para el desarrollo económico regional y representa el punto focal para las estrategias de políticas.

[1] Vaasa es una ciudad principalmente industrial, ubicada en la provincia del mismo nombre, con varios polígonos industriales. La industria proporciona una cuarta parte de los empleos. Hay una universidad (Universidad de Vaasa), facultades de Abo Akademi y Hanken, y dos universidades de ciencias aplicadas en la ciudad (Wikipedia).

Sin embargo, el mantenimiento de la competitividad internacional plantea cada vez más retos ya que las regiones atraviesan actualmente por una revolución industrial, denominada Industria 4.0. Dicha revolución no ha sido generada únicamente por la competencia global: hay una política europea consciente de querer reindustrializar Europa. Por otra parte, la globalización tiene efectos directos y tangibles a nivel regional lo que hace indispensable que el trabajo en el desarrollo de políticas regionales incluya una perspectiva global, de manera que la capacidad regional de aprender y adaptarse a los requisitos de políticas nuevas y más exigentes confluya en un desarrollo económico exitoso.

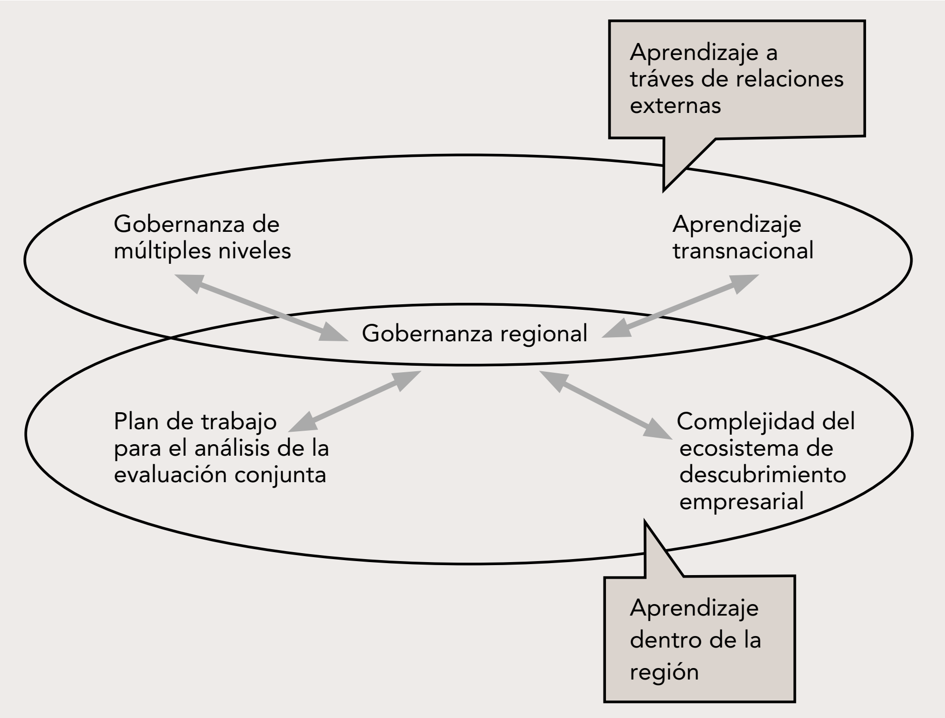
La región de Ostrobotnia ha diseñado un instrumento de conectividad que, desde 2012, se viene utilizando en la planificación y monitorización de la especialización inteligente. Este artículo pone de relieve las experiencias obtenidas al implementar estas estrategias y plantea, en especial, la siguiente pregunta: ¿Cuáles han sido nuestras experiencias al aplicar este instrumento para promover los descubrimientos empresariales y, de esa manera, apoyar a las pymes a la hora de enfrentarse al reto de la globalización?

Como se puede apreciar en el gráfico nº 1, esta pregunta se centra en el proceso de aprendizaje, que consiste en cuatro etapas: la creación conjunta de análisis y estrategia, el descubrimiento de la complejidad del ecosistema, el aprendizaje transnacional y la gobernanza de múltiples niveles. Este proceso tiene lugar tanto dentro de la región al involucrar a los principales interesados, como fuera de la misma al involucrar a los actores externos a través del aprendizaje transnacional y el mantenimiento de las relaciones con el gobierno finlandés.

Una conclusión fundamental derivada de este artículo es la relevancia de la diversificación mediante las pequeñas y medianas empresas. Es decir, en una región cuyo futuro a primera vista parecía estar en manos de unos cuantos grandes agentes empresariales, sorprendentemente el impulso de la innovación recae ahora en gran parte en las pymes. Esta conclusión ha llevado a la toma de nuevas políticas y más concretas en la región.

Si hacemos una recapitulación de las ideas principales que hay tras la política de especialización inteligente, encontramos que sus raíces residen en el trabajo del grupo «Knowledge 4 Growth» dentro de la Comisión Europea (Foray, 2014). Todas las regiones en Europa deben identificar las actividades y áreas clave del ámbito tecnológico que les otorgan ventaja competitiva y, en consecuencia, centrar en ello su acción política regional. La novedad que distingue la especialización inteligente de las políticas industriales y la innovación es el EDP (proceso de descubrimiento emprendedor), que tiene su origen en la economía austriaca (Kirzner, 1977). El EDP conlleva un proceso sistemático en el que los participantes en el mercado adquieren un conocimiento más completo y exacto a través de la interacción conjunta. Al aplicarse en la especialización inteligente, el EDP se enfoca en las relaciones de triple hélice (Etzokowitz-Leydesdorff, 2000), esto es, la interacción entre los productores de conocimientos tanto en las universidades como en los sectores público y privado.

Gráfico nº 1. **COMPONENTES CLAVE DE LA GOBERNANZA REGIONAL**



Fuente: Elaboración propia

Para capturar los beneficios totales del EDP, es preciso que este se convierta en un proceso continuo donde los interesados se mantengan involucrados en el refinamiento de las áreas de prioridad y en los instrumentos de política. Roman-Nyberg-Fellnhofer (2018) hacen una revisión sobre cómo las regiones comprenden el concepto, según una encuesta sobre los distintos planteamientos en Finlandia. Por otra parte, a nivel europeo, la plataforma de especialización inteligente en Sevilla realizó una encuesta correspondiente (Marinelli-Perianez, 2017). Ambas encuestas señalan las diferencias entre las regiones en cuanto al enfoque hacia el EDP y en el modo de propagación de la reflexión.

El EDP requiere un papel nuevo y más proactivo por parte de los actores en el sector público (Morgan, 2017) para de esa manera, incentivar cambios en las formas actuales de actuación. Para comenzar, las estrategias de especialización inteligente que tienen éxito comienzan por una comprensión de la necesidad de cambios en las políticas por parte de los encargados de formularlas, otorgando un nuevo papel proactivo a las instituciones regionales. Es probable que este cambio sea gradual, partiendo de una mentalidad donde los encargados de formular políticas en las instituciones regionales se vean a sí mismos como implementadores de las directivas del Estado para involucrarse en un proceso de descubrimiento.

Otro reto importante de la gobernanza regional del S3 (Smart Specialisation Strategies), con el objetivo de una creciente competitividad en los mercados mundiales, es la transición de la lógica tradicional de la distribución de recursos basada en un consenso político duradero a un proceso más proactivo de descubrimiento empresarial donde la asignación de los recursos se centre en un análisis que lleve al descubrimiento de nuevas oportunidades.

Por último, esta transformación requiere nuevas formas de recopilar la información, analizarla y conocer qué sucede en el ecosistema de innovación, es decir, un análisis con un alto grado de discrecionalidad y con una comprensión de la complejidad y dinámica del ecosistema. Por consiguiente, se puede concluir que un prerrequisito central en la redefinición del papel de las instituciones regionales hacia una posición más proactiva es la necesidad de un mejor análisis.

Más aún, la transformación de la gobernanza regional es un prerrequisito para las estrategias que promueven la competitividad en los mercados internacionales. La especialización inteligente y la resiliencia están íntimamente conectadas en un mundo de competencia global. La dinámica de la competitividad constituye la clave del éxito ya que ningún éxito mercantil es eterno, como hemos visto en Finlandia con, por ejemplo, el caso de Nokia. La OCDE (Organización de Cooperación y el Desarrollo Económico, OECD por sus siglas en inglés) identifica la gobernanza como uno de los cuatro campos que promueven la resiliencia. Según la OCDE, liderazgo y gestión transparentes, planteamientos estratégicos e integrados, capacidades en el sector público; y gobiernos abiertos y transparentes promueven la resiliencia (OECD, 2016). Esta resiliencia depende crucialmente de redes complejas (World Economic Forum, 2013). La gobernanza que apoya la complejidad de la ecología de la innovación a través de una mayor cantidad de conexiones más profundas también contribuye a la resiliencia económica.

Se podría pensar que el papel del Consejo Regional de Ostrobotnia es fácil y sencillo: estimular la transformación y el crecimiento a través de la identificación de las distintas necesidades de desarrollo y de financiación directa a aquellos que puedan activar el proceso de innovación. Sin embargo, en la realidad surgen discrepancias entre las instancias regionales en cuanto a los principales problemas de desarrollo. El papel del aprendizaje es importante porque puede conllevar una comprensión conceptual compartida que permita conclusiones sobre estrategias y medidas de transformación industrial.

De lo reflejado anteriormente cabe destacar los problemas de la fragmentación sectorial y un régimen de distribución de recursos a través de la política de mitigación. A diferencia de la política de mitigación, la especialización inteligente establece nuevas prioridades y la consiguiente asignación de recursos. En el cuadro nº 1 se señalan cuatro retos específicos para romper con el «antiguo régimen».

El artículo se estructura de la siguiente manera: basándose en las lecciones aprendidas al plantear y monitorizar la especialización inteligente, el trabajo comienza presentando los cuatro elementos clave que subyacen de la gobernanza regional y de la implementación de las estrategias de la especialización inteligente (ver gráfico nº 1). El segundo apartado describe el proceso de aprendizaje hacia el descubrimiento de un instrumento de conectividad para la planificación de la especialización inteligente en la región de Ostrobotnia y concluye que el análisis en sí no es una fase por separado, sino un diálogo de triple hélice entre los responsables de las políticas, los líderes de la innovación industrial y los investigadores de la innovación. Este apartado también describe algunas de las características clave del sistema de innovación regional junto con los retos actuales. La sección tercera presenta cómo el proceso de aprendizaje tiene lugar dentro de la región que involucra a las partes interesadas clave. Este apartado además describe los resultados actuales de los cambios clave en el sistema de innovación regional concernientes a la globalización y digitalización. El apartado cuarto adopta una perspectiva externa para describir el aprendizaje transnacional y la gobernanza de múltiples niveles como medio para implementar las estrategias de la especialización inteligente. En la parte de la conclusión del artículo se aborda la formulación de las políticas para la especialización inteligente que pueden impulsar la globalización de las pymes.

Cuadro nº 1. **RETOS Y CUESTIONES CLAVE RELACIONADOS CON LA IMPLEMENTACIÓN DE LAS ESTRATEGIAS DE LA ESPECIALIZACIÓN INTELIGENTE**

¿Dónde?	¿Cómo?
Dentro de la región	**Creación conjunta de análisis y estrategia**. ¿Sería posible movilizar a las partes interesadas *(stakeholders)* a través de la creación conjunta del análisis, consolidación de colaboraciones y desarrollo de un plan de trabajo (análisis de brechas)?
	Descubrir la complejidad del ecosistema. ¿Cómo podemos utilizar este método para desarrollar una comprensión más profunda de la complejidad del ecosistema de innovación, dinámica y potenciales nuevas partes interesadas, tales como pequeñas y medianas empresas?
El contexto externo de la región	**Aprendizaje transnacional.** ¿Cómo podemos utilizar el aprendizaje transnacional para apoyar este proceso?
	Gobernanza de múltiples niveles. ¿Podría el nivel nacional respaldar este proceso?

Fuente: Elaboración propia.

2. RETOS EN LA GOBERNANZA REGIONAL DE LAS ESTRATEGIAS DE ESPECIALIZACIÓN INTELIGENTE

Como se ha expuesto, un prerrequisito básico para la redefinición del papel de las instituciones regionales hacia una postura más proactiva es la necesidad de un mejor análisis. En algunas regiones el análisis se ha planteado como una fase separada: a realizarse por un experto externo para después dejarse a un lado y apartada de la implementación. Sin embargo, en Ostrobotnia dicho trabajo comenzó con la cooperación entre las autoridades regionales y los investigadores de la política de innovación de la Universidad de Vaasa.

Con anterioridad a la iniciativa de la Especialización Inteligente en 2012, se hicieron varios análisis bien documentados en Ostrobotnia, como el proyecto AMCER[2] (AMCER 2013), el cual señalaba que la región tiene un nivel de innovación sofisticado y un sistema de innovación globalizado impulsado por las grandes empresas. Al mismo tiempo, poseía un potencial de mejora a través de mejores relaciones entre los actores en el sistema de innovación. En consecuencia, y de acuerdo a la estrategia regional de especialización inteligente, el enfoque inicial del análisis se centraba en productos de gran exportación pertenecientes a los clústeres más significativos y en la conectividad integral de las hélices. Esto fue evaluado a través de encuestas de 2013-2015 y proporcionó una plataforma para el diálogo.

El enfoque y el método en la fase inicial (2012-2013) se basó en localizar las conexiones de la red dentro del modelo de triple hélice, medido mediante un análisis de deficiencias basado en encuestas entre los agentes de triple hélice combinado con reuniones de los grupos focales. El procedimiento se repitió, con algunas modificaciones, en 2015, y después hubo una revisión sustancial en 2017, enriquecida con entrevistas cualitativas precisas y profundas con actores industriales líderes.

El cambio metodológico del análisis reflejó una combinación de conexiones de triple hélice más profundas, que a su vez permitió un acercamiento a las políticas más informado y proactivo. Además de este aprendizaje interno en la región, el proceso se vio fortalecido por el aprendizaje transnacional, que involucraba a redes regionales externas.

El proceso de aprendizaje involucra al sector público, pero a la vez apoya la internacionalización de las pymes a través de la difusión de los descubrimientos realizados en aspectos críticos para tener éxito en la internacionalización y como base para la mejora de la capacidad correspondiente.

2.1. **Características del sistema regional de innovación**

El punto de partida para el diálogo en la labor estratégica y de triple hélice fue el proyecto AMCER, donde se compararon los sistemas de innovación de nueve regio-

[2] El proyecto AMCER (ESPON – European Spatial Observatory Network,) nació a iniciativa de la CPMR (Conferencia de Regiones Periféricas y Marítimas) y dirigido por Innova Europe (Bélgica). Los participantes en el proyecto representabana a 9 regiones de la UE: la región de Toscana como actor principal, más las regiones de Andalucía (España), Bretaña (Francia), Cataluña (España), Este de Inglaterra (GB), Flandes (Bélgica), Baja Sajonia (Alemania), Ostrobotnia (Finlandia), Provence-Alpes-Côte d'Azur (Francia). El proyecto ha ayudado a los 9 participantes regionales a disponer de una imagen exacta de sus sistemas de I+D, la actividad de la política de I+D de la UE y su impacto territorial. En Ostrobotnia, los resultados del proyecto brindaron perspectivas importantes en el proceso de la especialización inteligente.

nes europeas. De acuerdo con las distinciones hechas por Cooke (2004) y AMCER (2013), Ostrobotnia tiene un sistema de innovación globalizado impulsado por las grandes empresas. El proyecto AMCER sitúa el gasto empresarial de I+D en un 90.1% del gasto total en 2008, mientras que las últimas cifras del centro de Estadísticas de Finlandia fijan la cifra en 82.3% para 2016. Esta situación suele ser común en territorios donde el sistema de innovación está dominado por las EMN (empresas multinacionales), lo que conlleva el riesgo de funcionar como un enclave en la economía regional.

La región de Ostrobotnia tiene la fortuna de contar con un buen número de empresas internacionales establecidas en el clúster energético (por ejemplo, ABB, Wärtsilä, Danfoss y The Switch).[3] Las grandes compañías del sector de la energía tienen un papel protagonista en el sistema de innovación de la región ya que realizan una gran parte de las acciones de investigación e innovación (AMCER report, 2013, p. 93). Además del sector energético, Ostrobotnia también tiene empresas líderes con efectos 'aguas abajo' en la industria de construcción de barcos, donde las compañías utilizan tecnología «composite» (de materiales compuestos), como Baltic Yacht y Nautor, y cuentan con una larga y exitosa historia como exportadores en los mercados globales. En la industria de la tecnología abrasiva, Ostrobotnia está teniendo un importante papel por medio de compañías líderes como Mirka S.A., que es líder en su segmento de mercado y que podría denominarse como un «campeón oculto».

Sin embargo, la mayoría de compañías pertenecen a la categoría de pequeñas y medianas empresas (pymes). En general, el sector empresarial está conformado por grandes empresas apoyadas por grupos de cadenas de suministro de pymes que con frecuencia dependen de los pedidos de las EMN locales. Las grandes firmas emplean extensivamente subcontratistas, y hasta un 30% del valor añadido de la exportación se crea en estas pymes. El reto para el desarrollo consiste en la profundización y ampliación de la base de exportaciones. Para las pymes hay una necesidad continua de actualización tecnológica, así como de ascender en la cadena de valor y, en algunos casos, incluso de pasar a las grandes EMN y convertirse en exportadores independientes.

Los estudios realizados en la red de investigación empresarial subrayan que las compañías se internacionalizan a través de la creación de posiciones en las redes extranjeras. En consecuencia, la internacionalización se define como un proceso continuo donde las compañías gradualmente se internacionalizan al aumentar su compromiso hacia los miembros, nuevos y ya existentes, de la red empresarial de la compañía (Johanson & Vahlne, 2009, 13). Al fomentar, de esa manera, una creciente conectividad entre las compañías, se optimiza el proceso de internacionalización de las pymes en la región.

[3] Para una visión general de las empresas en el clúster de energía y en la organización del clúster, véase:http://energyvaasa.vaasanseutu.fi/ - https://www.merinova.fi/en/

2.2. **Retos de fragmentación**

En el proceso de la especialización inteligente, el diálogo triple hélice ha revelado que las compañías líderes se preocupan por asuntos vinculados a la tendencia hacia la Industria 4.0, por los retos de la cadena de valor y en sus implicaciones en la organización industrial, incluyendo medidas de políticas públicas. Esto constituye un reto para la estructura de la política regional de innovación en Ostrobotnia, basada en las conexiones entre los participantes de las diferentes partes interesadas.

Los municipios, las unidades gubernamentales estatales, las agencias de desarrollo y las compañías cuentan con representación en el grupo responsable de diseñar la política regional de innovación. Esto ha conducido a una situación donde, si bien los objetivos de la política de innovación se aprueban de forma consensuada, las diferentes perspectivas a la hora de determinar la política de innovación regional hacen que resulte complejo alcanzar un planteamiento común. En la práctica, los participantes llegan a un consenso que fácilmente permite el debate para la toma de decisiones, sin embargo, la política de compromiso y de formación de la innovación es más desafiante. La fragmentación y la necesidad de abarcar diferentes perspectivas llevan a una falta de ponderación en las consideraciones estratégicas, lo que constituye un reto para los descubrimientos empresariales.

Un mundo cada vez más globalizado añade presión en las formas de trabajo establecidas y requiere un nuevo acuerdo como base para la coordinación de esfuerzos. El crecimiento basado en la innovación se ve impulsado por las redes de conocimiento, no por las instituciones. De ahí que el enfoque en los retos de capacidad sirva para disminuir la fragmentación de recursos y, en algunos casos, reduzca incluso la rivalidad entre las instituciones.

3. APRENDIZAJE DENTRO DE LA REGIÓN

3.1. **Evolución y creación conjuntas del análisis**

Para dar respuesta al reto de diseñar una herramienta que fuera utilizada en los procesos de planificación y monitorización de la especialización inteligente, el Consejo Regional de Ostrobotnia constituyó en 2012 una asociación formada principalmente por las universidades de la región. El proyecto, de 15 meses de duración, o las soluciones a dicho reto, se denominó «el modelo de la especialización inteligente en Ostrobotnia». El informe se basaba en el papel que jugaban las redes en la creación y difusión de nuevos conocimientos (Virkkala *et al.*, 2014). Se basa en el papel de las redes en la creación y difusión de nuevo conocimiento a través de la interacción y el diálogo de triple hélice.

En pocas palabras, las fases del proceso incluyen una encuesta a las partes interesadas de la triple hélice regional (empresas, universidades e institutos de investigación, y organizaciones del sector público), con entrevistas, análisis de las deficiencias y seminarios especializados. El objetivo es identificar las expectativas y experiencias de los diferentes grupos de las partes interesadas y su interacción y colaboración con otros grupos. La brecha es la diferencia entre expectativas y experiencias. El «instrumento de conectividad» ofrece información acerca de los obstáculos entre diferentes aspectos de colaboración.

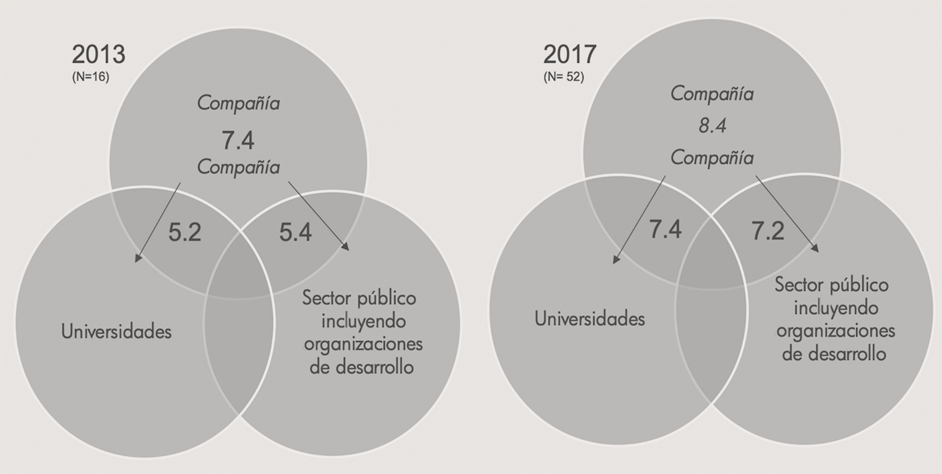
El enfoque del seminario se organiza mediante un evento conjunto donde los diferentes grupos de las partes interesadas planifican las acciones sobre cómo mejorar las bases de colaboración existentes en las áreas que tienen obstáculos.

Los proyectos de especialización inteligente se implementan para reducir esos cuellos de botella en el sistema regional de innovación. El proceso se repite cada dos años, lo cual también facilita la monitorización de los resultados y el desarrollo de medidas adicionales para perfeccionar el ecosistema regional. Se puede encontrar una descripción más detallada del instrumento de conectividad en un trabajo reciente de Virkkala *et al.* (2017).

Cabe señalar que funcionan tres modelos diferentes de innovación en las compañías en Ostrobotnia (Björk-Johansson, 2017). Las grandes empresas gestionan internamente, hasta cierto grado, sus procesos de innovación. Además, hay otras compañías que cooperan en innovación con otras al mismo nivel; y finalmente están las empresas que tienen procesos de innovación con subcontratistas y clientes. Los datos recabados en el proyecto LARS en curso (véase: http://www.lars-project.eu) indican que las estrategias de globalización se habilitan por medio de dos ecologías de innovación complementarias: 1) algunas grandes compañías, medianas y pequeñas están profundamente integradas en las triples hélices transnacionales, cooperando en innovación con compañías extranjeras, campeones nacionales y empresas regionales, combinando la cooperación en innovación con universidades regionales, nacionales e internacionales; 2) otras empresas pequeñas y medianas están innovando a través de la cooperación con otras empresas a nivel regional, nacional e internacional.

En ambos casos, las relaciones con las universidades regionales y con instituciones del sector público se encuentran positivamente correlacionadas con las estrategias de globalización. Estos hallazgos sugieren que las estrategias de globalización de las compañías energéticas pequeñas y medianas en Ostrobotnia coinciden con la teoría de Foray (2015) y de Mariussen *et al.* (2018) de descubrimientos empresariales advertidos en la cooperación entre investigadores, actores del sector público y empresas. Estos agentes innovadores pueden aprovechar las triples hélices integradas a nivel regional, nacional y transnacional.

Gráfico nº 2. **COMPARACIÓN DE LA CONECTIVIDAD DE TRIPLE HÉLICE EN 2013 Y 2017 DESDE UNA PERSPECTIVA DE EMPRESA**



Nota: Los datos obtenidos en 2017 provienen de 53 entrevistas personales, de las cuales 11 de los entrevistados representan a grandes empresas y 41 a pymes. En 2013 se entrevistó a 16 personas, de las cuales 3 representaban a grandes empresas y 13 a pymes.

Fuente: Consejo Regional de Ostrobotnia.

Tanto en 2013 como en 2017, la conectividad entre las compañías (7.4 en 2013 y 8.4 en 2017) fue más alta que entre compañías y universidades. La diferencia más significativa es la creciente importancia de la triple hélice para las empresas. La conectividad entre compañías-universidad aumentó de 5.2 en 2013 a 7.4 en 2017. La conectividad entre compañías-sector público lo hizo de 5.4 a 7.2. La experiencia demuestra que trabajar con el Modelo de Conectividad a tres rondas –2013, 2015 y 2017– ha mejorado la comprensión del sistema de innovación regional y ha permitido más acciones específicas basadas en la evidencia. Sin embargo, el impacto principal de la aplicación del modelo es que estimula la reflexión entre las partes interesadas sobre colaboraciones de innovación, lo que a su vez impulsa/incita una conectividad más cercana a la triple hélice. El modelo, junto con un diálogo estructurado de triple hélice, puede considerarse un método de descubrimiento empresarial, ya que ayuda a mejorar la cooperación de la innovación regional al mostrar los obstáculos que la afectan y al enfocar el apoyo en los mayores problemas. La dinámica de los índices de brecha[4] puede verse como un proceso de autodescubrimiento económico. El cuadro nº 2 ilustra los pasos adoptados en este proceso y las conclusiones metodológicas.

[4] «brecha» se refiere a la diferencia entre «expectativas» y «experiencias» de un socio triple-hélice de innovación en una escala 1-10. Véase: Virkkala et al. (2014)

Cuadro nº 2. **EL PROCESO DE APRENDIZAJE EN LA PLANIFICACIÓN DE LA ESPECIALIZACIÓN INTELIGENTE**

Las reuniones del proceso de análisis de las deficiencias y del grupo focal				
Año	Entrevistas con partes interesadas	Debates de los grupos focales	Observaciones	Conclusiones
2013	Entrevista de formato cerrado guía con valores numéricos.	En Vaasa (energía, soluciones marítimas) y Pietarsaari (industria de construcción de barcos y peletera)	El cuestionario es extenso, pero bien comprendido por las empresas, menos por el sector público. Las compañías dudan en abrirse hacia otras empresas	Simplificar el cuestionario. La información puede omitirse. Las reuniones del grupo focal pueden complementarse con recopilación de otra información.
2015	Cuestionario simplificado por correo electrónico.	En Vaasa (energía, soluciones marítimas) y Pietarsaari (industria de construcción de barcos y peletera)	Cuestionario por correo electrónico, (se pierde el control de la situación de entrevista). Las entrevistas cara a cara con líderes corporativos generan confianza y funcionan bien, pero requieren de recursos.	Elaborar el cuestionario para obtener más información sobre las cuestiones que las partes interesadas consideran de importancia. Hacer un análisis de Marco lógico (LFA) con el personal para atribuir las «brechas» a las medidas políticas
2017	Entrevistas de formato cerrado y semiestructuradas.	En proceso.	Bien recibido, las preguntas semiabiertas enfatizan en los resultados en la transferencia a la Industria 4.0 y los retos que se presentan	No está claro si se trata de una nueva tendencia o si el diálogo anterior no lo capturó lo suficiente

Fuente: Elaboración propia.

3.2. **Descubrimientos de la complejidad y dinámica del ecosistema de innovación**

Esta sección presenta algunos de los cambios fundamentales en el ecosistema de la innovación que se revelan en el estudio llevado a cabo en 2017. Estos resultados corresponden a dos temas principales: la globalización y la digitalización, incluyendo la Industria 4.0.

Las EMN y las pymes en la cadena de valor trabajan en un entorno global. En dicho entorno las condiciones están en rápida evolución como consecuencia de factores impulsados por la política y el mercado. Los resultados muestran que la globalización afecta a todos los agentes a lo largo de la cadena de valor. Es decir, los requisitos y la competencia global a la que se enfrentan las grandes compañías globales tienen lugar a través de la cadena de valor. Por ejemplo, los grandes exportadores reclaman y establecen cada vez más las mismas exigencias de resolución de problemas a sus proveedores. Uno de los proveedores entrevistados declaró:

> «*Cambios centrales como la globalización y la digitalización afectan a cada uno de nosotros de la misma manera, ya que estamos cada vez más construidos juntos como una red empresarial. Trabajamos en el mismo proyecto y los requisitos son los mismos para todos*»

Por ende, para impulsar la internacionalización de las pymes es importante mantener un diálogo triple hélice continuo que identifique los cambios centrales en el ámbito empresarial. Además, como parte de este diálogo, es importante identificar cómo estos cambios van cambiando las relaciones y las expectativas entre los actores en el ecosistema regional de innovación. Finalmente, como parte de la monitorización de la estrategia regional de especialización inteligente, es importante comunicar dichos cambios a los diferentes tipos de actores.

Aún más, las EMN señalan que los requisitos globales que tratan de reforzar la eficiencia en la cadena de valor van a conformar, en mayor medida, la relación entre las EMN y las pymes regionales. Estos requisitos se refieren, por ejemplo, a plazos de pago más largos, reducción de facturas y niveles de calidad más altos. Uno de los informantes concluye:

> «*Los requisitos globales irán en aumento debido al hecho de que formamos parte de una organización global donde se establece toda clase de "líneas de conducta". Es el caso no solamente para nosotros, sino también para otras grandes empresas. Estos requisitos van a influir directamente en las pymes, por ejemplo, en los términos de pago dados(establecidos)*»

Estos resultados señalan que la globalización lleva continuamente a las pymes regionales a mayores requisitos y expectativas. Es más, ya que las pymes en Ostrobotnia se enfrentan a los mismos retos que las grandes empresas, hay necesidad de invertir en tecnología de vanguardia y métodos de producción avanzados. Estos requisitos señalan, a su vez, la necesidad de que proveedores en la región crezcan para poder funcionar como proveedores en el futuro. Aún más, en relación con el tamaño limitado del mercado nacional, existe la necesidad de incrementar las actividades internacionales de las pymes en la región. Por consiguiente, para impulsar la internacionalización de las pymes en la cadena de valor es importante centrarse en la internacionalización de los proveedores pequeños y medianos y cómo estos proveedores pueden internacionalizarse a través de las grandes empresas en la región.

Los resultados también demuestran una creciente demanda de soluciones integrales manifestadas por los proveedores. Con una perspectiva análoga, las EMN resaltan la necesidad de mejorar la eficacia del proceso de compra y de limitar el número de facturas gestionadas. Los requisitos obligarán a los actores más pequeños a una mayor cooperación con otros actores para poder responder a las demandas, por ejemplo, hacia un cliente común más grande:

> «*Las grandes empresas buscan facturar a unas pocas empresas que a su vez consiguen reunir subcontratistas en su propia red empresarial. Se trata de una tendencia internacional que hemos notado. Aquí tendríamos la oportunidad de conseguir más negocio si tuviéramos la capacidad (de crear redes de cooperación entre los subcontratistas en la región), ya que los compradores buscan soluciones más amplias y completas que antes. En este sentido, la cooperación entre los subcontratistas en la región es absolutamente necesaria si queremos trabajar con entidades de mayor tamaño*»

No obstante, de tener éxito, esto significará una cooperación más estrecha en la cadena de valor, donde es más difícil sustituir a los participantes. Y viceversa: si no tenemos éxito, esto significará que el valor agregado se genera fuera de la región. En consecuencia, se necesita establecer redes de cooperación entre los subcontratistas en la región para impulsar la internacionalización de las pymes.

Tanto la consolidación de los suministros regionales como el requisito de crecimiento comprometen las condiciones de financiamiento y el cambio de facturación. Nuestra conclusión es que hay diferencias en cómo las pymes abordan estas cuestiones.

Para terminar, simultáneamente con el abastecimiento global, los resultados destacan que aprovechar la industria local es una tendencia y oportunidad creciente. Los informantes señalan que es particularmente importante situarse (físicamente) cerca de los socios/precursores de innovación, ya que la proximidad hace aumentar la calidad y aprovechar mejor el tiempo, a la vez que reduce el riesgo de error. Por consiguiente, la proximidad añade valor especialmente si los subcontratistas suministran componentes no estandarizados y si están involucrados en actividades de desarrollo de productos. Además, la transformación digital aumenta la necesidad de ciclos de desarrollo más acelerados y la rápida transferencia de las actividades de desarrollo de tecnología y de productos hacia la obtención de ganancias[5]. De acuerdo con estos resultados, las expectativas en cuanto a la cooperación con actores en el sistema de innovación regional probablemente aumentarán con la transformación digital.

En comparación con los resultados anteriores de 2013 y 2015, la ronda de diálogo de 2017 muestra que las compañías en el clúster energético experimentaron cada vez más la necesidad de invertir en la I+D relacionada con las nuevas tecnologías, tales como automatización, robótica, Internet de las cosas, impresión en 3D y la vinculación digital con las diferentes partes interesadas en la cadena de valor. Por una parte, la digitalización actúa como base para muchos de los cambios a los que, según las compañías tendrán que hacer frente en el ámbito empresarial en los próximos cinco años. Por otra parte, la importancia estimada de las redes inteligentes, los métodos avanzados de producción y los materiales de última generación para la innovación y el crecimiento han aumentado entre los informantes.

Cuadro nº 3. **IMPORTANCIA DE LAS TECNOLOGÍAS FACILITADORAS ESENCIALES PARA EL DESARROLLO INNOVADOR EN OSTROBOTNIA**

(Escala del 1 al 10, donde 1 = pequeña importancia y 10 = gran importancia)

	Importancia (2013)			Importancia (2017)		
Tecnología	N	Hoy en día	Dentro de 20 años	N	Hoy en día	Dentro de 20 años
Energías renovables	28	7.1	9.5	49	8.2	8.7
Redes inteligentes	44	7.0	8.9	47	8.0	9.1
Métodos avanzados de producción	39	7.4	8.8	50	8.1	9.0
Materiales avanzados	38	6.3	8.0	42	7.1	8.5

Fuente: Consejo Regional de Ostrobotnia.

En las entrevistas se describió, en particular, los métodos avanzados de producción como medios para mantener no solo la producción en la región frente a la competencia de precios, sino también las actividades de I+D. Sin embargo, los métodos avanzados de producción y digitalización también se presentan como un sector en el que la región podría despuntar y del cual podría derivarse una ventaja dinámica competitiva en el futuro.

Esta ventaja puede basarse en una gama más amplia de productos y servicios, lo que implicaría un cambio en el que los exportadores pasarán de ser proveedores de

[5] Koponen, L. (2017): The view of Finnish CTOs on the latest R&D, disponible en: https://static1.squarespace.com/static/557153fee4b0463792c32c2b/t/59f03e012aeba59449b1d282/1508916750028/CTO_Survey_results_October_2017.pdf

componentes a proveedores de soluciones y *software*. Si bien esto requerirá aumentar la proximidad con el cliente, también alterará al mismo tiempo el valor añadido producido para suministrar un componente de servicio mayor. Al crear este componente de servicio, la digitalización externa se podrá ver como un medio para crear valor añadido en la producción de servicios. Las empresas grandes y medianas en particular se ven a sí mismas en un proceso de cambio a este respecto. Por ejemplo, al describir las oportunidades de digitalización, uno de los informantes, representante de una gran compañía manufacturera en la región, concluye:

> «*Estamos viendo hoy en día el ecosistema completo y cómo podemos ayudar a nuestros clientes a hacer sus empresas más inteligentes*»

Así pues, la digitalización crea la posibilidad de nuevos negocios que refuercen la cadena de valor, pero que también provean la posibilidad de nuevos actores dentro o fuera de la región. Sin embargo, los resultados también revelan que las pequeñas empresas tienden a adoptar una perspectiva interna en relación a los retos y las oportunidades de digitalización.

Entre las pequeñas empresas, el objetivo de la digitalización se establece en términos de fomentar la productividad y la eficiencia de calidad y costes. En cuanto a la digitalización y la Industria 4.0, las pequeñas empresas priorizan la mejora del rendimiento productivo a añadir valor a los clientes.

Estos resultados demuestran la necesidad de incrementar el conocimiento de las empresas acerca de cómo la digitalización y la transferencia hacia la Industria 4.0 alteran la lógica de ventas y proveen oportunidades para desarrollar servicios de valor añadido a los clientes existentes:

> «*Con la digitalización hay mayor posibilidad de que también las pymes se vean obligadas a asumir responsabilidad por los servicios ofrecidos. Es necesario reflexionar sobre ¿cuál es mi negocio de servicio en cuanto a estos componentes metálicos que proveo? ¿Es el hecho de tenerlos en mi almacén lo que me permite intercambiarlos de manera fácil y rápida, o que puedan ser fácilmente localizados?*»

De forma similar, existe la necesidad de mejorar el conocimiento sobre cómo la digitalización y la transferencia hacia la Industria 4.0 podrían facilitar una colaboración y una postura más sólida en la cadena de valor para sus suministros. Y, en última instancia, cómo los servicios de valor añadido basados en la digitalización podrían conllevar no solo a un aumento de la rentabilidad sino también un incremento de los ingresos.

Los resultados también revelan que las empresas consideradas importantes por otras empresas de la región como socios de innovación han ido en aumento, así como que cuentan con mayores expectativas de cooperación con otras empresas de la región.

Cuadro nº 4. **EXPERIENCIAS Y EXPECTATIVAS PERCIBIDAS EN LA COOPERACIÓN ENTRE LAS EMPRESA**

	2013				2017			
Actividad de cooperación	N	Experiencias	Expectivas	Brecha	N	Experiencias	Expectivas	Brecha
Cooperación con otras empresas en la región de Ostrobotnia en cuanto al desarrollo de nuevas tecnologías, productos y servicios.	12	8.2	6.9	-1.3	38	8.7	7.1	-1.6

Nota: Escala del 1 al 10 sobre «expectativas» y «experiencias» en cooperación. Una brecha es la diferencia entre ambas.

Fuente: Consejo Regional de Ostrobotnia.

Como se aprecia en el cuadro nº 4, las entrevistas revelaron dos factores importantes que subyacen del incremento en las expectativas. Primero, los resultados muestran que la digitalización y la Industria 4.0 aumentan en importancia y, a la vez incrementan las expectativas sobre la cooperación en actividades de innovación entre clientes y proveedores.

Más especialmente, por un lado, la digitalización e Industria 4.0 aumentan la exigencia de, por ejemplo, la trazabilidad de componentes y materiales utilizados, el flujo de información detallada y eficiente, así como de información en tiempo real. También existe la necesidad de más sistemas interconectados entre proveedores, clientes directos y clientes finales. Basándose en esos cambios, los informantes observan que existe una necesidad de encontrar nuevos sistemas y medios de cooperación entre clientes y proveedores. Por otra parte, los informantes describen que se espera, cada vez más, que los proveedores hagan sus propias contribuciones y creen valor añadido en los procesos de desarrollo de productos. Uno de los proveedores entrevistados concluyó lo siguiente:

> «*Hemos notado que el conocimiento de los clientes disminuye. Entra gente nueva que tal vez ni siquiera tenga conocimiento de su producto final. En muchos casos nos convertimos en mayores expertos de sus productos que ellos mismos. Es una tendencia general que hemos notado en muchos clientes. Sentimos que necesitamos tomar mayor responsabilidad de sus productos de la que ellos toman. Este es el caso también de Finlandia. No nos importa, ya que lo vemos como una oportunidad para atar a nuestros clientes a nosotros aún más fuertemente*».

En segundo lugar, los resultados muestran una creciente demanda de soluciones y productos procesados más integrales, así como para entidades más grandes. Esta conclusión también explica los aumentos en las expectativas de cooperación relacionadas con el desarrollo de nuevas tecnologías, productos y servicios con otras empresas de la región.

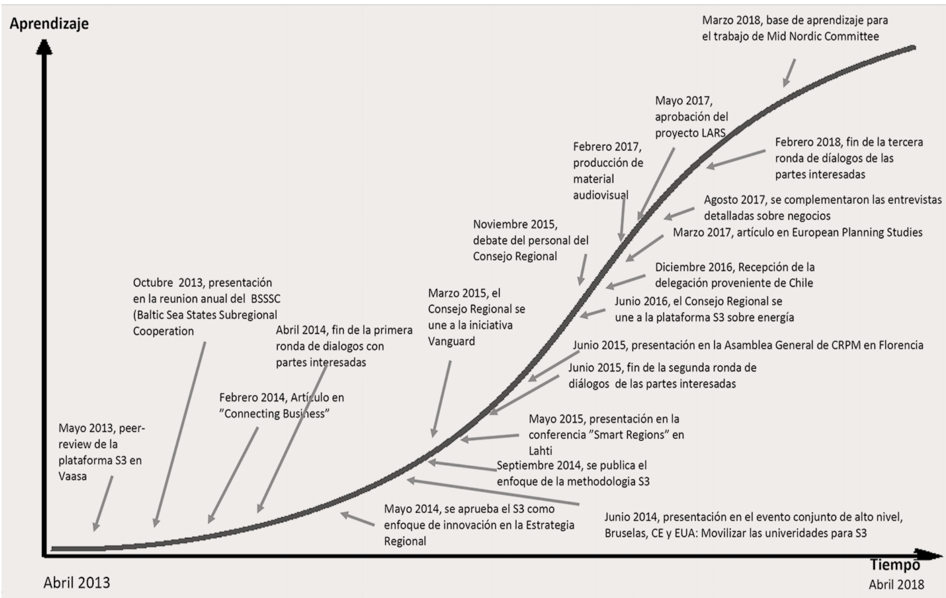
En general, la Industria 4.0 constituye tanto una oportunidad como una amenaza. Claro que el deseo en la región es tener la mayor cantidad posible de empresas orientadas al crecimiento. El análisis de los resultados da reflejo de ello: algunas pymes están dispuestas a adoptar el desarrollo, mientras que otras no. Sin embargo, una conclusión de la conversación es que las decisiones de políticas públicas al respecto tienen un importante papel como desencadenante del desarrollo. Finalmente, los resultados destacan la importancia de la diversificación a través de las pymes. Esto es, lo que a primera vista pareciera una región cuyo futuro, en cuanto a innovación, estaba en manos de unos cuantos grandes actores corporativos, sorprendentemente depende ahora en gran medida de las pymes.

4. APRENDIZAJE A TRAVÉS DE LAS RELACIONES EXTERNAS

4.1. Aprendizaje transnacional

La puesta en marcha de las estrategias de especialización inteligente en Ostrobotnia puede ilustrarse como una curva de aprendizaje hacia decisiones políticas mejores y más informadas. El gráfico nº 3 ilustra el aprendizaje acumulado en el tiempo y muestra las metas logradas en esta tarea en el periodo de cinco años. Como se muestra en el cuadro nº 4, el proceso de elaboración de políticas consiste en una combinación de actividades de aprendizaje en Ostrobotnia y a nivel europeo.

Gráfico nº 3. **HITOS EN EL APRENDIZAJE DE LA ESPECIALIZACIÓN INTELIGENTE EN OSTROBOTNIA**



Fuente: Elaboración propia.

El punto de partida de este proceso tuvo lugar en mayo de 2013, cuando se organizó un taller de revisión por pares en cooperación con la Plataforma de Especialización Inteligente, que sirvió para revisar la situación de Ostrobotnia al respecto. Otra meta del proceso de políticas se alcanzó en mayo de 2014 con la aprobación de la Especialización Inteligente como parte de la Estrategia Regional para el periodo 2014-2018. Estos dos eventos crearon las condiciones para profundizar y ampliar el proceso de especialización inteligente.

El gráfico nº 3 plantea tres cuestiones: 1) si ha habido un aprendizaje de políticas, tal y como se indica; 2) cuál es el contenido de dicho aprendizaje; y 3) si este aprendizaje ha contribuido a un cambio en las políticas.

Si consideramos el aprendizaje de políticas en el eje Y, podemos clasificarlo en cuatro niveles: 1) aprendizaje individual, 2) a nivel de organización, 3) a nivel de las partes interesadas, y 4) a nivel de la UE. Estos niveles de aprendizaje se dan de forma paralela e interactúan entre sí con el tiempo.

A nivel individual ha habido aprendizaje, y cada vez más personas, instituciones y compañías se involucran en la planificación y monitorización de las estrategias de la especialización inteligente. Si pasamos al nivel de organización, los componentes esenciales establecidos por el proceso de descubrimiento emprendedor (EDP) a través de la especialización inteligente y del aprendizaje transnacional, han contribuido a que el aprendizaje ya no esté vinculado a una persona en particular.

Sobre el aprendizaje de las partes interesadas, podemos apreciar en el gráfico nº 2 que, en comparación con periodos anteriores, las empresas tienen en mucha más alta estima a sus colaboradores de la innovación de triple hélice. Este resultado refuerza el argumento de que ha existido un aprendizaje a nivel de las partes interesadas.

A nivel europeo, los resultados muestran que ha habido un diálogo y una comunicación intensa. Se han comunicado los resultados del proceso de aprendizaje en publicaciones temáticas como las de Roman-Nyberg, T-Fellnhofer (2018), Kristensen I.-Teräs J.-Rinne T. (2018), Mariussen *et al.* (2016, 2018), Johnson-Virkkala (2016), Teräs-Mäenpää (2016). También se ha presentado el modelo de Ostrobotnia en varias conferencias S3 durante el periodo 2012-2014, cuando las regiones estaban desarrollando sus programas.

Por último, en cuanto a la cuestión de si el aprendizaje transnacional ha contribuido también a un cambio de políticas, podemos observar que la parte medular del S3 es el concepto de descubrimiento, que tiene sus raíces en la economía austriaca. Por lo tanto, el aprendizaje ha sido un tema recurrente en la formulación de las políticas para la innovación, contribuyendo al crecimiento económico[6].

[6] Se ha estimado que el 80% del crecimiento económico es generado por las innovaciones (Cooke-Boekholt-Tödtling, 2000).

Esto representa un cambio de enfoque. Los Consejos Regionales en Finlandia son organizaciones políticas gobernadas por una junta elegida políticamente. Al nombrar las juntas, y también al articular las demandas, los partidos políticos funcionan como guardianes. Está bien visto trabajar elaborando políticas encaminadas al crecimiento económico a través de S3. Sin embargo, los problemas del día a día son lo que, con frecuencia están relacionados con la distribución de recursos y con la mitigación entre los diferentes grupos de interés.

Las conclusiones son que los retos relacionados con la globalización en curso y el enfoque en las cadenas de valor no se hubieran iniciado a través de un proceso político regional, siendo la especialización inteligente y el aprendizaje transnacional los que han proporcionado el marco conceptual y la plataforma para hacer frente a estos retos. El proceso de aprendizaje continúa, ya que los nuevos retos requerirán unas nuevas conclusiones.

4.2. **Retos en la gobernanza de múltiples niveles en la especialización inteligente**

Finlandia tiene un sistema de innovación centralizado. En el análisis de la gobernanza de innovación finlandesa, Sabel y Saxenian (2008) concluyen que existe una necesidad de descentralizar con el fin de diversificar económicamente a través de descubrimientos empresariales. Esto no ha ocurrido hasta la fecha, ya que las políticas están centralizadas y las regiones hacen aportaciones mediante una agenda formal común. La multitud de perspectivas da como resultado que las estrategias, en la práctica, se implementan con un grado suficiente de flexibilidad para abarcar diferentes perspectivas.

Esto dificulta llegar a conclusiones sobre los descubrimientos y las medidas necesarias para estimular un crecimiento basado en la innovación. Las evaluaciones frecuentes de las políticas adoptadas, así como de los contactos, generan un aprendizaje entre los individuos, pero no se transfiere de manera suficiente al aprendizaje organizacional y a las conclusiones colectivas sobre cómo combinar diferentes instrumentos de políticas, es decir, evitar la fragmentación de las políticas.

La política en Finlandia promueve la especialización regional, pero no hay un marco de políticas a nivel nacional para la especialización inteligente. Esto debe remediarse, ya que una terminología común y un proceso estructural son vitales para el aprendizaje a nivel de organización.

Este enfoque de la especialización inteligente incluye un concepto de innovación ampliado, donde las innovaciones basadas en la experiencia son consideradas como complemento a las innovaciones basadas en la ciencia. Para Ostrobotnia esto significa un modo de interacción de innovación entre «el hacer» (*doing*) y «el usar» (*using*), donde se impulsan las innovaciones gracias a las redes de negocios y a la proximidad de los clientes.

Todo esto tiene el potencial de enriquecer e inspirar la investigación basada en la ciencia y la tecnología. La difusión de los resultados obtenidos por las EMN que están bien integradas verticalmente provee importantes conocimientos, particularmente, como se ha dicho, porque hay una necesidad de internacionalizar todavía más el sistema de innovación finlandés. El tamaño pequeño de Ostrobotnia, así como la proximidad entre los actores, contribuye a un rápido como informal acceso a las perspectivas de las grandes empresas que se encuentran bien integradas verticalmente.

Diseñar una estrategia nacional formal para la especialización inteligente que incluya un formato para que las regiones interactúen con el propósito de determinar los descubrimientos, serviría para facilitar la curva de aprendizaje que va desde el aprendizaje individual hasta el organizacional. Aún más, el aprendizaje organizacional serviría como marco de coordinación y reduciría la fragmentación de las políticas.

5. CONCLUSIÓN SOBRE CÓMO LA ESPECIALIZACIÓN INTELIGENTE ESTÁ IMPULSANDO LA GLOBALIZACIÓN DE LAS PEQUEÑAS Y MEDIANAS EMPRESAS EN OSTROBOTNIA

Los cambios tecnológicos pueden facilitar un nuevo crecimiento, pero también pueden hacer que la producción industrial actual se vuelva obsoleta. La Industria 4.0 no es solamente un cambio impulsado por el mercado, sino también una política europea consciente que pretende facilitar la reindustrialización de Europa. Por lo tanto, resulta imprescindible que el gobierno regional desarrolle una estrategia que impulse la Industria 4.0 y la globalización. Los resultados en este artículo demuestran que este es un proceso de aprendizaje colectivo ya que las formas tradicionales de trabajo se vuelven obsoletas. En este contexto, las pequeñas y medianas empresas son partes interesadas de vital importancia ya que son las que resultan más afectadas por este desarrollo, que constituye tanto una oportunidad como una amenaza.

Las regiones que se adapten con éxito al cambio cosecharán los beneficios de la revolución tecnológica, mientras que las que no aborden el reto perderán probablemente su competitividad. En las regiones que cuentan con ecosistemas de innovación sofisticados, el cambio puede ocurrir más fácilmente y de forma espontánea. Esto deja a las regiones periféricas, que cuentan con un ecosistema menos desarrollado, ante un reto mucho mayor para poder formular una política proactiva. El hecho de que tanto los recursos humanos como financieros suelen ser mucho menores en las regiones periféricas, provoca que la dificultad de este reto aumente significativamente.

Los resultados presentados en el apartado cuarto indican que el aprendizaje transnacional se erige como un facilitador crucial para enfocar la agenda del Consejo Regional destinada a dichos retos. El cuadro nº 5 muestra las respuestas a las preguntas surgidas en el cuadro nº 1.

Cuadro nº 5. **RESULTADOS CLAVE EN LA FORMULACIÓN DE POLÍTICAS PARA EL IMPULSO DE LA GLOBALIZACIÓN POR MEDIO DE LA ESPECIALIZACIÓN INTELIGENTE**

¿Dónde?	Resultados y respuestas clave
Dentro de la región	**Creación conjunta de análisis y estrategia.** Sí, es posible hacer una creación conjunta de análisis, consolidación de colaboraciones y desarrollo de un plan de trabajo a través de diálogos entre los responsables políticos, los líderes de innovación industrial y los investigadores de innovación.
	Descubrir la complejidad del ecosistema. Sí, logramos desarrollar más este método para llegar a un entendimiento más profundo de la complejidad del ecosistema de innovación, la dinámica y las nuevas partes interesadas potenciales mediante entrevistas detalladas, diálogos y análisis. A través de este proceso, el análisis adquiere una mayor granularidad, alcance y profundidad, a medida que se implementan nuevos detalles del complejo ecosistema de innovación regional y las transformaciones en curso por las que está atravesando este ecosistema.
El contexto externo de la región	**Aprendizaje transnacional.** Las conclusiones son que los retos relacionados con la globalización en curso no se hubieran iniciado a través de un proceso político regional. La especialización inteligente y el aprendizaje transnacional han ofrecido el marco conceptual y la plataforma para abordar dichos retos.
	Gobernanza de múltiples niveles. La relación con el gobierno de Finlandia es una cuestión pendiente.

Fuente: Elaboración propia.

El proceso de aprendizaje de los retos a los que se enfrentan las pequeñas y medianas empresas hasta la fecha ha llevado a la consiguiente toma de medidas, entre las que destacan las encaminadas al fomento de la incorporación a las redes verticales del mercado inter-empresas en el ámbito de las empresas multinacionales.

La política tiene como fin incrementar la competitividad y ampliar la base de exportación regional a través del reforzamiento de los procesos básicos y de apoyo en la estrategia de especialización inteligente alrededor de las cadenas de valor. De esta manera, la política contribuye a una diversificación orientada a la exportación. En la práctica, esto significa abordar el desarrollo de la cadena de valor. Fomentar el tejido vertical del mercado B2B en torno a las empresas multinacionales focales implica consecuentemente que las pymes emergentes deban también hacer frente a los retos propios del mercado internacional.

Los instrumentos de políticas puestos a disposición por los Consejos Regionales son los programas ERDF y ERM[7]. Dentro de estos programas se han tratado los siguientes objetivos:

- Soluciones digitales en las pymes.
- Reforzamiento de las redes nacionales e internacionales de laboratorios públicos de investigación.
- Formación de cadenas de valor para ayudar a las pymes a formar cadenas de exportación más grandes, con el propósito de atender las demandas cada vez mayores de los clientes.
- Capacitación de las pymes, con el objetivo de mejorar la solución de problemas del cliente.

Las medidas se han diseñado para superar las brechas en el ecosistema de innovación basado en los resultados de los diálogos estructurados con colaboradores de triple hélice.

La visión de la política es crear una «región conectada», es decir, crear proximidad entre las partes interesadas. Esto en sí también está dirigido a fomentar la internacionalización de las pymes. Las mismas redes, verticalmente bien integradas, de los grandes exportadores también abren el camino a la internacionalización y a ir ascendiendo por la cadena de valor de los nuevos participantes, si las partes interesadas están bien conectadas.

El análisis de conectividad es desafiante. En octubre de 2017 se lanzó el proyecto LARS, con el objetivo de reforzar la capacidad regional. El proyecto[8], al tratarse de un proyecto piloto e integrado en el programa Interreg del mar Báltico, une las redes de triple hélice de diez colaboradores en el área del mar Báltico. El propósito de este proyecto es crear una «masa crítica» mediante la expansión de la red de innovación regional a través del aprendizaje transnacional.

Por otro lado, Vaasa Energy Business Innovation Centre (VEBIC, centro de innovación empresarial de energía de Vaasa) es una plataforma de investigación multidisciplinaria fundada por la Universidad de Vaasa junto con sus colaboradores industriales en Vaasa. VEBIC se centra en la investigación de los impactos empresariales y sociales más amplios de las nuevas tecnologías en el campo de la energía.

La plataforma Innolab provee un entorno de innovación abierto que combina la investigación de la innovación abierta y las innovaciones a nivel de usuario. La plataforma trabaja en innovaciones y comercialización, financiación colectiva y negocios impulsados por los usuarios.

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[7] Siglas en finés para el programa de previsión de cambios estructurales.

[8] Para información adicional, véase www.lars-project.eu (LARS, siglas en inglés para el aprendizaje entre las regiones sobre la especialización inteligente)

La economía digital constituye una plataforma multidisciplinaria y de investigación abierta; de esta forma sus actividades se enfocan en la digitalización de las organizaciones y la industria, los negocios de datos y seguridad de la información, y en asuntos similares impulsados por los cambios tecnológicos.

Para finalizar con los resultados de las políticas, consideramos dos perspectivas: la primera, conocer si el concepto genérico de la especialización inteligente ha sido importante para su desarrollo, y la segunda, cómo podemos concluir si las medidas adoptadas han impulsado la internacionalización de las pymes.

En caso de no contar con el amparo de la especialización inteligente, probablemente se daría un «goteo de conocimiento» que iría descendiendo por la cadena regional de valor añadido. De forma alternativa, las EMN recurrirían al aprovisionamiento global, al no encontrarse sus proveedores regionales en condiciones de atender las necesidades globales.

Sin la especialización inteligente no hay un marco que sirva para evaluar las políticas, de manera que la acumulación de conocimiento seguirá estando vinculada al conocimiento tácito y a las relaciones personales, lo que provocará intervenciones fragmentadas y puntuales.

La especialización inteligente basada en el análisis de las diferencias de las redes de innovación permitirá a la región acumular conocimiento y, de esa manera, formular intervenciones más atinadas. Al utilizar el instrumento de conectividad para solucionar los cuellos de botella, la política reforzará el proceso de aprendizaje espontáneo en la cadena de valor añadido. De esta forma, se fomenta un desarrollo dinámico basado en los descubrimientos emprendedores.

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Corporate Social Responsibility in medium-sized Hidden Champions from Austria

The phenomenon of Hidden Champions illustrates that also small and medium-sized companies can be successful world and European market leaders. This paper has the objective of analyzing the significance of Corporate Social Responsibility (CSR) in Austrian Hidden Champions. The results of this study show that CSR is of high significance and a success factor for Austrian Hidden Champions. The companies conduct several activities in the field of CSR and gain numerous benefits from these policies. It must be emphasized that the manifestation of CSR in family-owned Hidden Champions vastly differs from how non-family-owned Hidden Champions practice CSR.

El fenómeno de los campeones ocultos demuestra que también las pequeñas y medianas empresas pueden ser líderes en el mercado mundial y en el europeo. Este estudio tiene el objetivo de analizar la importancia de la Responsabilidad Social Corporativa (RSC) en los campeones ocultos de Austria. Los resultados muestran que la RSC es de gran importancia y un factor de éxito para los campeones ocultos austriacos. Las empresas realizan varias actividades en el campo de la RSC y obtienen numerosos beneficios de estas políticas. Hay que resaltar que la manifestación de la RSE en los campeones ocultos de propiedad familiar difiere enormemente de cómo la practican aquellos campeones ocultos de propiedad no familiar.

Ezkutuko txapeldunen fenomenoak erakusten digu enpresa txiki eta ertainak ere nazioarteko eta Europako merkatuan liderrak izan daitezkeela. Azterketa honen helburua Gizarte-erantzukizun korporatiboaren (GEK) garrantzia aztertzea da Austriako ezkutuko txapeldunen artean. Emaitzek adierazten dutenaren arabera, Austriako ezkutuko txapeldunentzat GEK garrantzi handikoa eta arrakastarako faktorea da. Enpresek zenbait jarduera egiten dituzte GEKren esparruan eta politika horietatik hainbat onura lortzen dituzte. Azpimarratu beharra dago jabetza familia batena den ezkutuko txapeldunetan eta jabetza familia batena ez den ezkutuko txapeldunetan GEK ez dela era berean adierazten.

Georg Jungwirth
David König
Department of International Marketing & Sales Management
University of Applied Sciences CAMPUS 02
Graz (Austria)

Table of contents

Keywords: Corporate Social Responsibility, medium-sized world market leaders, family-owned and non-family-owned companies, Hidden Champions, sustainability.

Palabras clave: Resposabilidad Social Corporativa, líderes mundiales de mercado de tamaño medio, empresas familiares y no familiares, campeones ocultos, sostenibilidad

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1. **INTRODUCTION**

The Austrian economy is composed of 99.8% small and medium-sized companies. Businesses of this size are the so-called backbone of the Austrian economy, and their success is critical for overall economic stability. If small and medium-sized unknown companies are at the top of their industry, they are called Hidden Champions (Jungwirth/Kraus 2011).

Hermann Simon, a former professor for marketing now working as a consultant, pioneered the research field of Hidden Champions. His research addresses the reasons for the success of small and medium-sized businesses, and not necessarily known enterprises that are world market leaders within their business fields. His investigation is devoted mostly to German companies. The critical aspects of his research are the success factors of the Hidden Champions. Gaining findings within this research field sets benchmarks for the business of small and medium-sized enterprises (Simon 2009). Simon's identification criteria for Hidden Champions are specific to his research, meaning that they are specific to the German economy. Therefore, separate criteria had to be determined to fit to the Austrian economy. This research has identified seven critical success factors for Austrian Hidden Champions (Jungwirth/Kraus 2011). The research in this field continues under the consideration of possible management action fields as success factors. CSR is one possible management field due to its importance to society (Rommelspacher 2012).

Recent developments show that sustainability has become an important topic for many businesses nowadays and that CSR is one approach to face the challenges of globalisation (Jonker et al. 2011). Whereas large corporations have to justify their actions to stakeholders, the research on CSR among small and medium-sized enterprises (SMEs) is often based on the currently popular concept of social capital (Perrini 2006). Therefore, the social and ecological impact of business activities has more and more become integral to companies of all sizes (Waßmann 2013). However, CSR has only been well researched in large corporations, while SMEs have received less attention in this area (Jenkins 2006).

Therefore, it is one of the research questions of this paper if CSR has any significance for very successful medium-sized companies, like the Austrian Hidden Champions. Do the managers of these companies consider CSR a success factor?

Finally, it has to be emphasized that most of the Hidden Champions are family-owned businesses (Simon 2012; Jungwirth 2017). This paper will also raise the question if there is a difference between the manifestation of CSR in family-owned and in non-family-owned Hidden Champions.

2. CORPORATE SOCIAL RESPONSIBILITY

Chapter 2 will discuss the topic of CSR. To determine whether this is significant or a success factor for Austrian Hidden Champions, it first has to be analysed. As a starting point for this chapter the term Corporate Social Responsibility will be determined and delimited.

2.1. Definition and systemisation of CSR

The European Commission has proposed the following definition of CSR: '*The responsibility of enterprises for their impacts on society. Respect for applicable legislation, and for collective agreements between social partners, is a prerequisite for meeting that responsibility. To fully meet their CSR, enterprises should have in place a process to integrate social, environmental, ethical, human rights and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders…*' (European Commission 2011).

Regarding the impact on society noted in this definition, several conclusions can be drawn. First, CSR goes beyond legal compliance. Moreover, the impact of CSR on society includes ethical and moral actions. Consequently, this also includes actions that might minimise profit. In other words, profit orientation is indifferent to ethics and responsibility (Hentze/Thies 2012).

Lastly, CSR is limited to the economic section of the umbrella term sustainability. As already stated, sustainability includes dimensions that comprise all societal aspects (Hentze/Thies 2012).

Conducting active stakeholder dialogue should be considered an underlying principle when it comes to delimit the term. Within the framework of CSR, stakeholder dialogue signifies the importance not only of gathering information, but also of actively entering into continuous dialogue with stakeholders to address concerns, criticism, or other topics (Braun/Lotter 2011).

To systemise, categorise, and analyse CSR, a variety of models can be used. Most commonly the triple bottom line model is used to describe the scope of CSR. This categorisation is used in the Green Paper of the European Commission to measure CSR in businesses (European Commission 2001). Likewise, the Austrian business council for sustainable development, respACT, which is the leading platform for CSR in Austria, uses this categorisation in its guiding principles (respACT 2013). The triple bottom line model provides a comprehensive categorisation of all aspects of CSR. In contrast to Carroll's pyramid (Carroll 1991) and the three-domain approach (Carroll/Schwartz 2003), the triple bottom line model specifically defines an ecological dimension. However, the legal dimension is not considered. Instead, legal compliance is a precondition and is seen from the point of view of the other dimensions, such as the economic dimension. Due to the widespread use of the model and its clear categorisation, this model will be used for further elaborations in this paper.

2.2. **CSR dimensions and action fields**

The triple bottom line model categorises CSR into three main pillars. The pillars are the economic, ecological, and social dimensions. Other terms in this context are people, planet, and profit. These two categorisations can be understood synonymously (Herchen 2007).

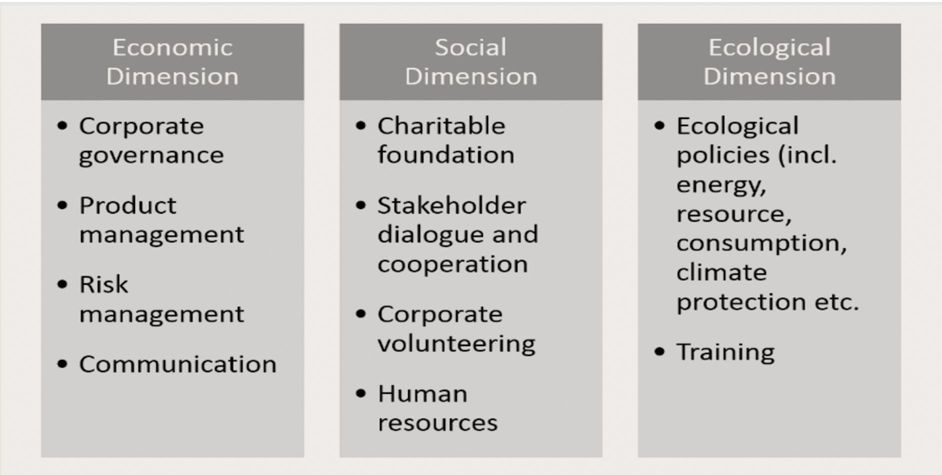
Firstly, the economic dimension addresses profit orientation. In the context of CSR, generating profits is seen from a sustainability perspective. This is in contrast to most stock-listed companies where the publication of the quarterly results often promotes short-term profit orientation. In addition, profit is seen as a means to maintain equity in CSR (Herchen 2007). Furthermore, this dimension also includes organisational policy and governance of the company (Bitar/Jamali/Mezher 2006).

Secondly, the social dimension takes into account the impact that a corporation has on society, and in particular the society in which the business operates. This incorporates the subjects of public health, workplace safety, education, and equal opportunity (Bitar/Jamali/Mezher 2006).

Lastly, the ecological dimension addresses the issue of the preservation of natural resources, which are limited. Sustainable economic activities within the framework of the limitation of resources and the survival of humans in general are the main focuses of this dimension (Herchen 2007). This includes compliance with governmental regulations, recycling, energy efficiency, and more (Bitar/Jamali/Mezher 2006).

Actions which are undertaken within the framework of CSR can be allocated to these three dimensions. The upcoming figure provides a comprehensive overview of the action fields.

Figure 1. **CSR DIMENSIONS AND ACTION FIELDS**



Source: Own presentation.

Note that the action fields need to be understood within the framework of CSR. In general product management, human resources (HR), risk management, corporate governance etc. include activities that go beyond CSR. However, in this context only the activites which are targeted towards social responsibility are taken into account e.g. HR activities that incentivise voluntary work or CSR reports for communication.

Economic dimension

This dimension includes all activities around CSR management. In other words, action fields like corporate governance, product management and risk management are designed and executed with social responsibility in mind. Communication addresses the need to be transparent by using external and internal communication channels. One important tool is the CSR report based on the Global Reporting Initiative (GRI) standards (Global Reporting Initiative 2017).

Social dimension

Overall, the International Organization for Standardization (ISO) 26000 family of standards is a tool for organisations to support socially responsible actions. These standards should be understood as guidance. Unlike other ISO standards, organisations cannot be certified with ISO 26000. The aim of these standards is to clarify the social responsibility of organisations (International Organization for Standardization 2010). Action fields within the dimension can be found in Figure 1.

Ecological dimension

The ISO 14001 standard provides a detailed explanation of what is required to implement an ecological management system. This standard supports the company in achieving its intended environmental performance and objectives. ISO 14001 can be implemented by all organisations, regardless of size, type, or nature. The entire ISO 14000 family of standards focuses on supporting organisations to manage their environmental responsibilities (International Organization for Standardization 2015).

2.3. **CSR benefits and criticism**

Having discussed the dimensions of CSR and its significant action fields, the benefits of such policies and actions now need to be illustrated. Furthermore, potential negative aspects of CSR will be analysed.

CSR benefits

This section answers the question of why a business should engage in CSR actions besides for ethical and moral motivations.

Loew and Clausen conducted a study for the German national CSR forum to provide a foundation for the working group ‘promotion and distribution of Corporate Social Responsibility particularly to small and medium-sized companies’. The objective of this research was to analyse studies on the benefits of CSR to determine the relevant benefits especially for small and medium-sized businesses. The relevance was determined due to the amount of publications elaborating on benefits with restricted or no economic value to companies (Loew/Clausen 2010). The study identified the following relevant benefits of CSR:

- Cost efficiency
- Risk reduction
- High motivation of employees

- Attraction and retention of talent
- Fostering innovation
- Business development due to new markets and products
- Strengthening of customer relationships
- Creation and protection of reputation
- Enhancing investor relations (Loew/Clausen 2010)

In the book *Corporate Social Responsibility as an International Strategy*, Keinert proposes seven major benefits of CSR that are empirically proven (Keinert 2008). These benefits are:

- Achievement of competitive advantage
- Added value to offering
- Opportunities for alliances
- Improvement of labour relations and organisational commitment
- Equal opportunity and diversity
- Enhanced financial results
- Limiting losses after business crisis (Keinert 2008)

In their 2014 contribution to the journal *Business Ethics,* Story and Neves elaborate on the positive influence of CSR on employee performance: employees are aware of the CSR practices of their organisations, they understand the motivations for CSR policies, and they are engaged (Neves/Story 2015).

In addition, Mishra and Nigam identify a positive influence of CSR on long-term business performance. This is achieved due to the company's positive relationship with stakeholders and society. Mishra and Nigam argue that the society is the place where companies sell their offering. Therefore, CSR activities in society enhance the performance of the overall business (Mishra/Nigam 2015).

Criticism on CSR

A typical example of greenwashing is that companies claim to be environmentally friendly when, in reality, they are not. Means are used to advertise this environmental friendliness instead of truly implementing processes or offering products that could indeed be deemed to support such a claim. This is a problem because it deceives customers, which is a contradiction of CSR. Moreover, it may also backfire on the business (EnviroMedia Social Marketing 2016).

A common argument for why large companies have adopted CSR into their business is that they are trying to work against the establishment of laws that would enforce social or environmental policies. Corporations argue that a majority have also implemented CSR policies in their business, and therefore there is no need for laws in this regard. Again, these corporations use CSR solely as a marketing tool, claiming to support critical social issues when, in fact, there is no evidence that this is the case. The aim is not to recognise the company's responsibility to society, but to avoid law enforcement (Werner-Lobo 2009).

The association of CSR with tax avoidance was comprehensively proven within the framework of Hoi, Wu, and Zhang's 2013 empirical research: companies with irresponsible CSR activities (CSR activities damaging for one group of stakeholders) were engaged in tax avoidance, whereas businesses that conducted activities regarded as positive were not associated with this behaviour (Hoi/Wu/Zhang 2013).

It should be noted here that CSR policies should include standards for taxation, such as publishing all required accounting information. All CSR activities should be disclosed in regular reports to ensure transparency (Christensen/Murphy 2004).

2.4. **CSR and SMEs**

CSR has traditionally been associated with large corporations, but researchers are more and more recognising the importance of business ethics and social responsibility of small and medium-sized companies (Quinn 1997; Spence 1999; Spence/Rutherford 2003; Jenkins 2006).

For example, Kusyk and Lozano (2007) identified in their extensive literature review of more than 30 years a total of 80 drivers and 96 barriers for the social performance of SMEs. They even clustered these drivers and barriers along key stakeholders and developed a four-cell typology of social issues.

Other researchers pointed out the peculiar strengths and special relational attributes of SMEs in the context of CSR and highlighted the differences in CSR orientations compared with multinational corporations (Jamali/Zanhour/Keshishian 2009).

Building on the work of Porter and Kramer (2006) who drew particular attention to the link between competitive advantage and CSR, Jenkins (2009) demonstrated how SMEs can achieve added value and competitive advantage through realising and maximising the opportunities of CSR. She also developed a "business opportunity" model of CSR for SMEs.

But interestingly there seems to be a literature gap regarding the CSR activities of very successful SMEs. There is only evidence how medium-sized Hidden Champions from Central and Eastern Europe (CEE) respond to questions of sustainability (Zhexembayeva 2013). This is why a comprehensive research was designed to analyse how medium-sized world market leaders from Austria practice CSR.

3. **RESEARCH METHODOLOGY**

Characteristics of Hidden Champions

Hermann Simon initiated the research on Hidden Champions around 30 years ago. Companies that are considered to be Hidden Champions are those that are not necessarily known or large, but they are in an excellent market position (Simon 2014). Simon defined the following three criteria to identify a Hidden Champion:

1. The company is among the top three market leaders worldwide, or the first leader on its continent
2. Its revenue has to be lower than 5 billion euros1
3. There is a low degree of familiarity of the company to the public (Simon 2012)

To fit the Austrian situation, criteria have been defined within the framework of the Hidden Champions research at the University of Applied Sciences CAMPUS 02 in Graz, Austria. These criteria are based on Simon's definition, but the latter's maximum revenue is considered as too high for the Austrian business landscape. The following lists the criteria for Austrian Hidden Champions:

1. The company is first, second, or third worldwide, or the first in Europe (market share according to company or press)
2. Its revenue has to be lower than 200 million euros
3. The company's headquarters have to be in Austria (Jungwirth 2010)

According to this definition, 189 Hidden Champions have been identified in Austria by February 2017. On average they show an annual turnover of 53 million Euros and they employ about 400 people (Jungwirth 2017).

Since 61% of the medium-sized world market leaders from Austria are family-owned, it is also a target of this paper to compare the manifestation of Corporate Social Responsibility in family-owned and non-family-owned Hidden Champions.

Research Design

The findings of this study are based on a quantitative empirical research. The chosen method was a computer-assisted telephone interview (survey tool «umfrageonline.com») using a standardised questionnaire that was especially designed for this research. The interviewees for this research were individuals who were responsible for CSR in their company. In most cases, this was the business executive. In some cases, however, there might be a dedicated responsible for CSR in a company. In those cases, that person was interviewed.

The descriptive approach of this research was chosen in order to describe the characteristics and behaviour of internationally very successful medium-sized companies regarding the phenomenon of CSR. In a further step it is planned to carry out explanatory research that aims at determining the reasons why the Austrian Hidden Champions practice CSR like this.

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[1] Initially this limit was at 1.5 billion German marks which equals about 766 million euros (Simon 1996).

The following table groups all the identified Hidden Champions based on the criteria of revenue and whether or not the company is family-owned. In addition, the ultimately obtained subjects within the categories are also illustrated. Overall, 70 subjects were required to make statistical analysis verifiable.

Table 1. **SAMPLE COMPOSITION**

Criteria	Required subjects	Actual subjects	Overall population
Family-owned	35	38	115
Non-family-owned	35	34	74
Total	**70**	**72**	**189**
Revenue: € 51-200 million	33	29	90
Revenue: Symbol 0–50 million	37	43	99
Total	**70**	**72**	**189**

Source: Own elaboration.

Table 1 explains how the interviewees were selected. The quota for the criterion of revenue was directly driven from the overall population, meaning that the composition of all identified Hidden Champions regarding the revenue was applied to the 70 required. Moreover, about half of the subjects were required to be non-family-owned companies. After all, 72 medium-sized world market leaders from Austria agreed to take part in this study.

The field work for this empirical research was conducted in February 2017.

4. CSR IN AUSTRIAN HIDDEN CHAMPIONS

Based on the empirical research, this chapter presents the importance of CSR in Austrian Hidden Champions. Furthermore, it addresses the question of the differences between family-owned, non-family-owned, smaller and bigger Hidden Champions.

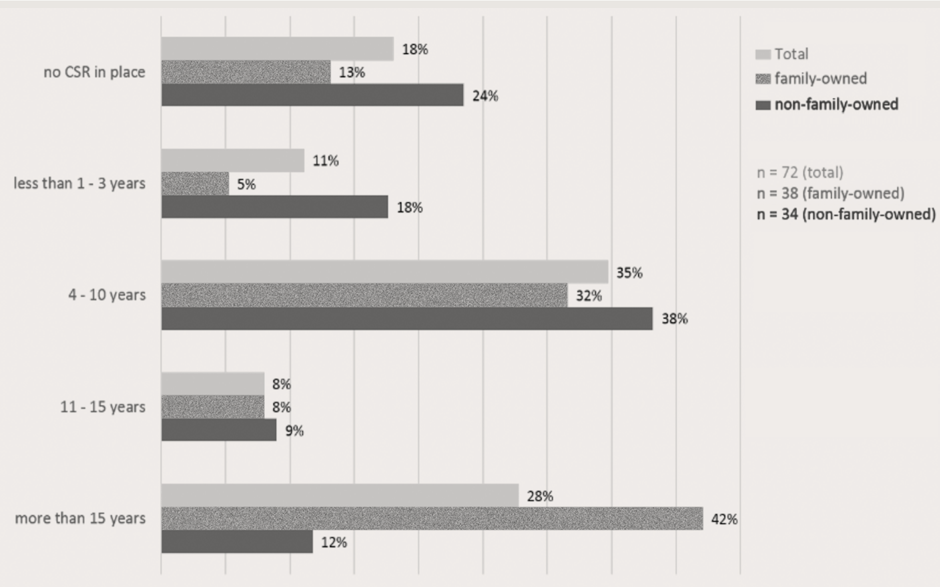
4.1. General significance of CSR in Austrian Hidden Champions

Based on chapter 2.2, this section illustrates the overall significance, the importance of each CSR dimension and its action fields.

CSR implementation and significance as success factor

First, the respondents were asked whether CSR is implemented in their company and if so, since when. The following chart presents the results in this regard.

Figure 2. **IMPLEMENTATION OF CSR – OWNERSHIP**



Source: Own presentation.

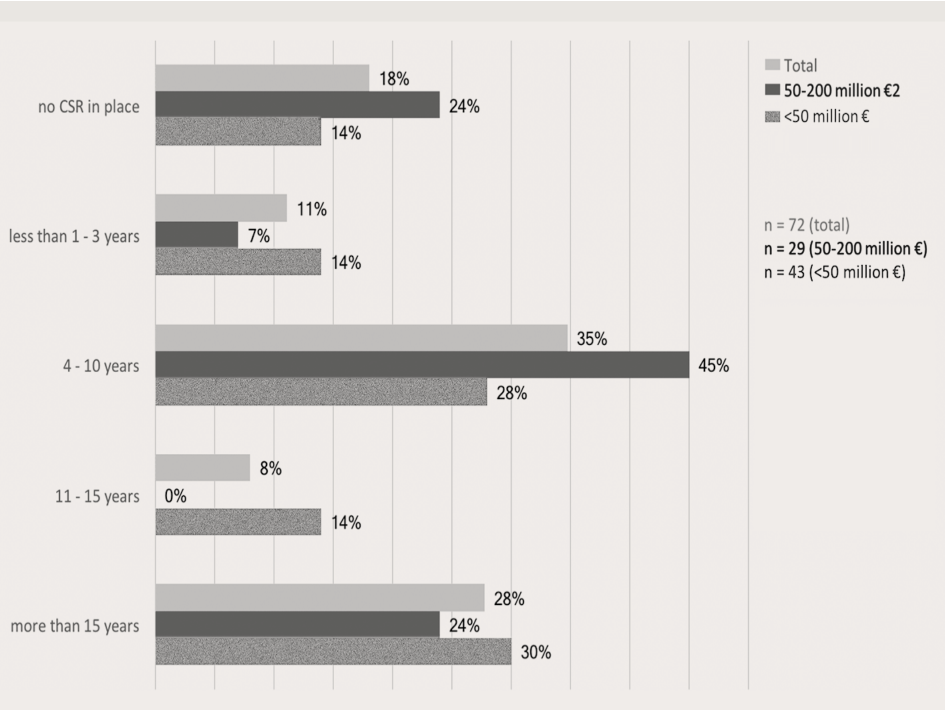
The analysis reveals that over 80% of the Austrian Hidden Champions in the sample have implemented CSR in their business. Over 70% of the Austrian Hidden Champions have implemented related actions for at least four years.

CSR tends to have been implemented for longer in family-owned than in non-family-owned Austrian Hidden Champions. Almost half of the family-owned Hidden Champions have engaged in CSR for longer than 15 years. On the other hand, the same is only true for just over 10% of the non-family-owned Hidden Champions.

The figure 3 illustrates the analysis regarding the revenue. Overall, 44% of the smaller Hidden Champions have CSR longer in place than 10 years compared to only less than a quarter of the bigger Hidden Champions. Furthermore, almost a quarter of the bigger Hidden Champions have no CSR in place compared to slightly less than one out of seven smaller Hidden Campions.

The figure 4 provides insights into the overall significance of CSR. The question corresponding to this analysis was: ‘Is CSR an essential success factor in your company?’

Figure 3. **IMPLEMENTATION OF CSR – REVENUE**



Source: Own presentation.

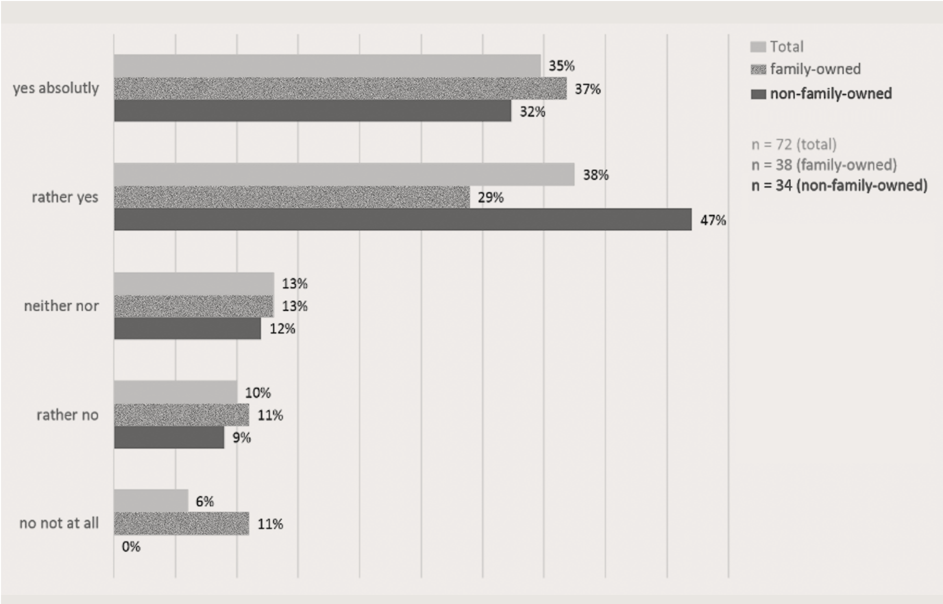
It has to be stressed that neither success nor success factor were defined objectively in this context. That is why the answers to this question correspond to the subjective evaluation of the interviewed managers.

However, every analysed Hidden Champion from Austria is objectively a very successful company because all of them are ranked among the TOP 3 companies worldwide in their respective industry. Moreover, we have evidence from former studies that the Austrian Hidden Champions show outstanding key performance indicators regarding profit or growth rates (Jungwirth 2011).

Overall, CSR is seen as a success factor in Austrian Hidden Champions, with over 70% of the interviewees indicating that this is the case.

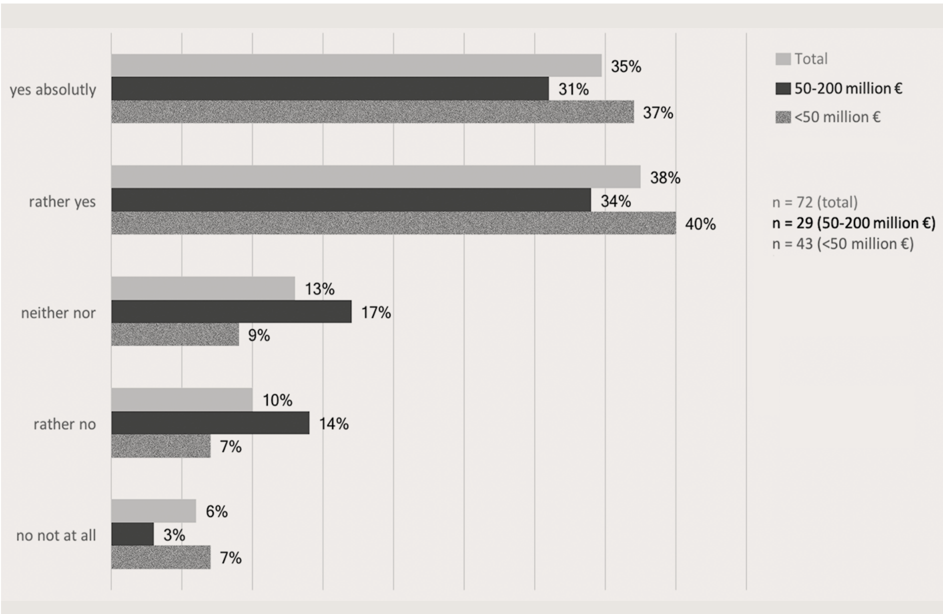
Not a single interviewee from a non-family-owned Hidden Champion considered CSR not to be a success factor at all. Moreover, almost 80% of the interviewees from non-family-owned companies saw CSR as a success factor, compared to 66% of those from family-owned Hidden Champions.

Figure 4. **CSR AS A SUCCESS FACTOR - OWNERSHIP**



Source: Own presentation.

Figure 5. **CSR AS A SUCCESS FACTOR - REVENUE**



Source: Own presentation.

The illustration 5 displays the same analysis but segmented regarding revenue. In other words, the following analysis elaborates on the difference in the significance of CSR as success factor between Hidden Champions which have a revenue of less than 50 million euros and Hidden Champions with a revenue between 50 and 200 million euros.

The results reveal that 77% of the Hidden Champions with a revenue of less than 50 million euros consider CSR as success factor compared to 65% of the Hidden Champions with a revenue between 50 and 200 million euros. On the other hand, 17% of the bigger Hidden Champions view CSR rather not or not at all as significant success factor compared to 14% of the smaller Hidden Champions.

Significance of the CSR dimensions and action fields

Section 2.2 introduced the triple bottom line approach and its three dimensions. The interviewees were asked to rank the three dimensions according to their significance in the company. The scale for the ranking was between 1 and 3, whereas 1 was given to the most important dimension and 3 to the least important dimension. The following average values are the calculated results (the closer the value is to 1, the more significant is the dimension):

- Economic dimension: 1.31
- Social dimension: 2.11
- Ecological dimension: 2.58

The analysis reveals that the economic dimension is the most significant one for Austrian Hidden Champions, whereas the ecological dimension is the least significant one.

Overall there is no vast difference between family-owned and non-family-owned Austrian Hidden Champions in this regard.

The upcoming results illustrate the significance of the CSR dimension for family-owned and non-family-owned Hidden Champions:

- Economic dimension: 1.37 (family-owned)
  1.26 (non-family-owned)

- Social dimension: 2.18 (family-owned)
  2.09 (non-family-owned)

- Ecological dimension: 2.55 (family-owned)
  2.65 (non-family-owned)

In general, the ranking does not differ from the overall result. However, non-family-owned Hidden Champions tend to value the economic dimension as even more important as their family-owned counterparts do.

The next outcomes illustrate the significance of the CSR dimension for smaller and bigger Hidden Champions:

- Economic dimension: 1.33 (<50 million €)
  1.31 (50-200 million €)
- Social dimension: 2.11 (<50 million €)
  2.11 (50-200 million €)
- Ecological dimension: 2.67 (<50 million €)
  2.53 (50-200 million €)

In this case, the results for the ecological dimension vary vastly. Bigger Hidden Champions tend to view this dimension as more significant than smaller Hidden Champions.

When it comes to the significance of the action fields the following can be stated for Austrian Hidden Champions: The action fields of sustainable HR, sustainable product management, ecological actions, and cooperation are used by four out of five Austrian Hidden Champions. Moreover, two thirds of the Hidden Champions engage in corporate governance; over half engage in communication and risk management; and approximately 50% offer training regarding Corporate Social Responsibility. On average, the companies in the sample engage in six different action fields.

The results for family-owned Austrian Hidden Champions do not differ from the overall execution of the action fields. Regarding non-family-owned Hidden Champions, fewer of these tend to engage in sustainable product management, ecological actions, and cooperation. Still, over 70% of the non-family-owned Hidden Champions do use these activities.

4.2. **CSR benefits and disadvantages for Austrian Hidden Champions**

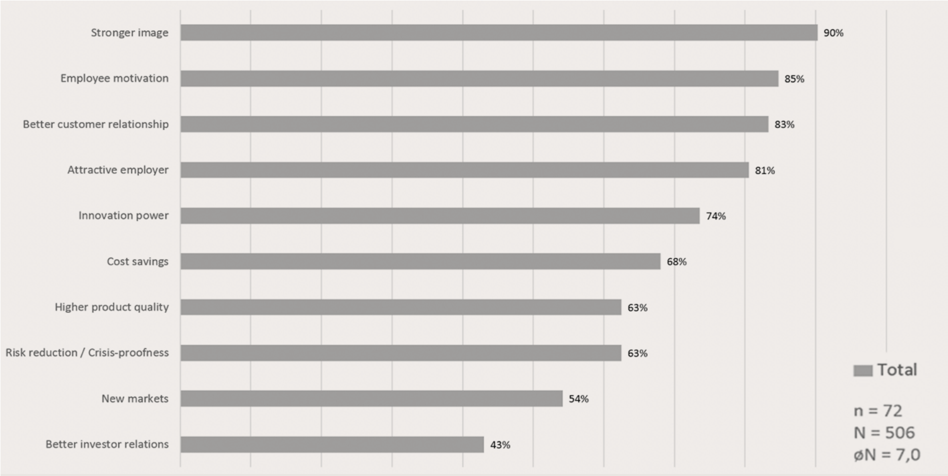
Subsequently to chapter 2.3, the upcoming part elaborates on CSR advantages and disadvantages for Austrian Hidden Champions.

CSR benefits

The following graph (figure 6) demonstrates the general benefits of CSR seen by the Austrian Hidden Champions in the sample.

In general, four out of five Hidden Champions considered stronger image, employee motivation, better customer relationships, and being an attractive employer as benefits of Corporate Social Responsibility with stronger image being the most cited benefit. On the other hand, better investor relations was named the least frequently out of all benefits. Nevertheless, almost half of the respondents saw this benefit. Furthermore, they tended to see numerous benefits arising from Corporate Social Responsibility. This is substantiated by the high number of total answers (N=506).

Figure 6. **CSR BENEFITS – TOTAL**



Source: Own presentation.

Table 2. **CSR BENEFITS – OWNERSHIP**

Family-owned			Non-family-owned		
1	Stronger image	84%	1	Stronger image	97%
2	Employee motivation	84%	2	Better customer relationship	91%
3	Attractive employer	84%	3	Employee motivation	85%
4	Innovation power	79%	4	Attractive employer	76%
5	Better customer relationship	76%	5	Innovation power	68%

Source: Own presentation.

The analysis for family-owned Hidden Champions reveals minor differences compared to the overall distribution: better customer relationship was named less compared to the overall sample and the non-family-owned Hidden Champions. Specifically, this means 15% fewer mentions compared to non-family-owned Hidden Champions.

The benefits of innovation power and being an attractive employer were named less often by respondents from non-family-owned Hidden Champions than by those from family-owned Hidden Champions. Specifically, each of the two benefits received approximately 10% fewer mentions. Furthermore, stronger image was named as a benefit by almost all respondents from non-family-owned Austrian Hidden Champions, which is 13% more than the respondents from the family-owned Hidden Champions.

Table 3. **CSR BENEFITS - REVENUE**

<50 million €			50-200 million €		
1	Stronger image	88%	1	Stronger image	93%
2	Attractive employer	81%	2	Better customer relationship	93%
3	Innovation power	78%	3	Attractive employer	90%
4	Better customer relationship	77%	4	Innovation power	83%
5	Higher product quality	74%	5	Employee motivation	72%

Source: Own presentation.

The comparison between smaller and bigger Hidden Champions reveals that stronger image is seen by both groups as the most common benefit. Over 90% of the bigger Hidden Champions see better customer relationship (same amount as for stronger image) as benefit. Only four out of five of the smaller Hidden Champions, on the other hand, see better customer relationship as benefit.

CSR disadvantages

To this end, the respondents were asked an open question (meaning that there were no defined answers) about CSR disadvantages. The answers were collected and clustered to provide a clearer understanding of the findings. The results are provided in the table below.

Table 4. **NEGATIVE ASPECTS OF CSR FOR AUSTRIAN HIDDEN CHAMPIONS**

Negative aspect	N
Additional costs	10
Additional resources	5
Less flexible, slower working	2
More work	1
Higher prices	1
Image problems due to lesser profit orientation	1
Complex communication	1
Longer lasting processes	1
Negative impact on profit	1
Total	23

Source: Own presentation

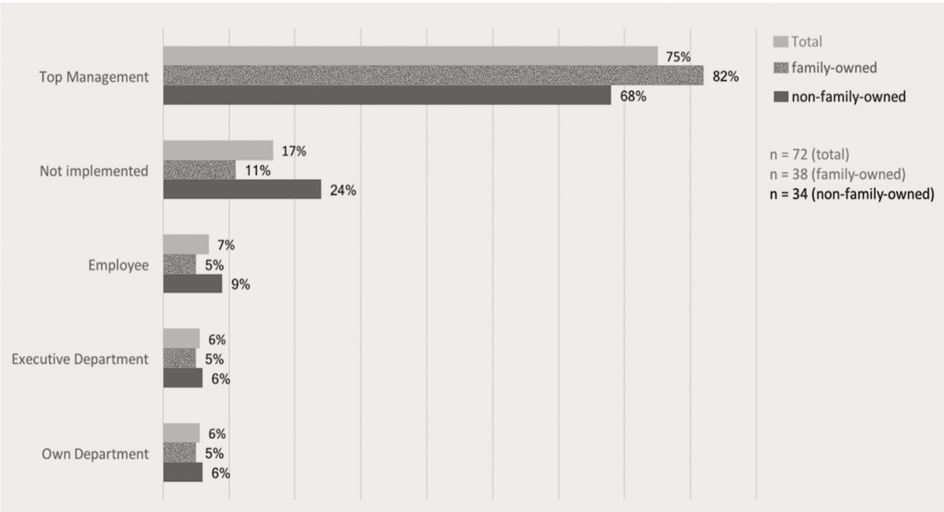
The results show that the interviewees saw less than ten different negative aspects to conducting CSR. More than ten answers concerned the issue that additional costs occur when engaging in activities around CSR. Furthermore, five answers addressed the need for additional resources as a negative aspect. It should be noted that every respondent provided one answer to this question. All in all, almost one third of the interviewed Hidden Champions saw negative aspects in CSR.

Section 2.3 discussed the aspects greenwashing, CSR as public relations tool, avoiding the establishment of laws and tax avoidance. These aspects were not mentioned by the respondents. Instead, they mentioned internal aspects, which can be found in the table above. Another aspect in this regard can be found in the last chapter, in which the benefits seen by Austrian Hidden Champions were illustrated. A total of 90% of the respondents saw the improvement of their company's image as benefit of CSR. This could indicate that negative aspects such as greenwashing or the use of CSR as a public relations tool can be found in Austrian Hidden Champions. However, solely based on the results of this study, this interpretation cannot be made. To analyse these aspects, the authors recommend that an additional qualitative study should be conducted.

4.3. **Integration of CSR into Austrian Hidden Champions**

This section addresses the issue of how CSR is integrated into Austrian Hidden Champions which includes an analysis of the organisational implementation. This is illustrated in the graph below.

Figure 7. **ORGANISATIONAL LAYER OF CSR – OWNERSHIP**

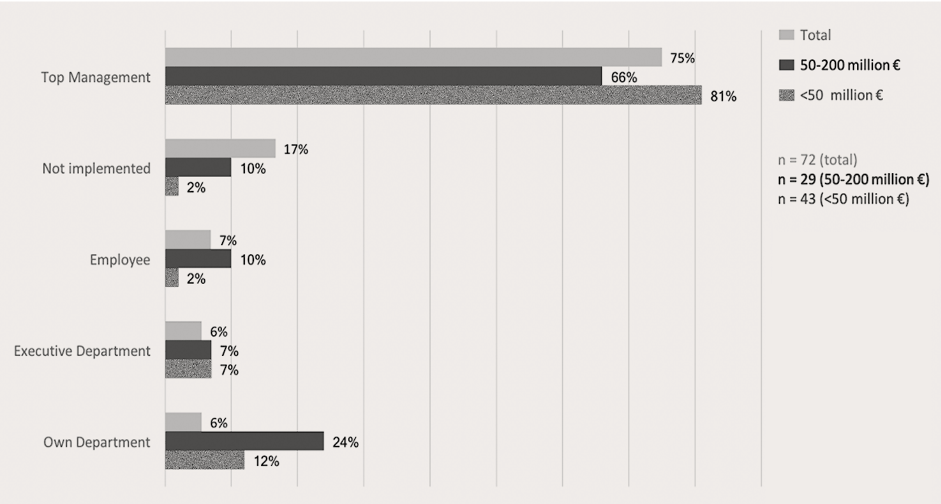


Source: Own presentation.

Overall, Austrian Hidden Champions integrate and organise CSR in top management. Three out of four have integrated it in this way. In contrast, less than a fifth of the Austrian Hidden Champions have not implemented CSR at all.

The analysis regarding family-owned Hidden Champions reveals that more of them have integrated CSR into top management compared to the total sample and to the non-family-owned Hidden Champions. Four out of five family-owned Hidden Champions have CSR integrated in this way. In contrast, 14% fewer non-family-owned Hidden Champions have integrated CSR into top management. Moreover, one out of four of these companies has not implemented CSR at all. This is 13% more compared to the family-owned Hidden Champions.

Figure 8. **ORGANISATIONAL LAYER OF CSR – REVENUE**



Source: Own presentation.

The analysis regarding Hidden Champions with a revenue with less than 50 million euros reveals that more than 80% of these companies implement CSR on a top management level compared to two-thirds of the bigger Hidden Champions. Bigger Hidden Champions tend to organise CSR into an own department. One quarter of these Hidden Champions implement it in this way compared to slightly more than 10% of the smaller Hidden Champions.

4.4. **CSR communication and budget**

The following section provides the results of the analysis of the CSR-related communication behaviour in Austrian Hidden Champions. This includes external as well as internal communication.

External communication

Overall, 60% of the Austrian Hidden Champions communicate their CSR activities externally. The percentage of family-owned Hidden Champions that communicate these activities is slightly higher (63%) compared to that of non-family-owned Hidden Champions (56%).

The sustainability report or CSR report is a significant tool for external communication. 15% of the Austrian Hidden Champions in the sample use a CSR report for external communication. However, 21% of the non-family-owned Hidden Champions do, compared to only 11% of their family-owned counterparts.

47% of the Austrian Hidden Champions in the sample use their homepage for external communication of CSR activities. Furthermore, public relations (42%) and flyers (44%) are significant means of communication. Videos (21%), customer magazines (18%), and business reports (14%) are less frequently chosen for external CSR communication by Austrian Hidden Champions. On average, the Austrian Hidden Champions that do communicate externally use approximately five to six different communication channels.

Compared to the overall distribution and to non-family-owned Hidden Champions, flyers and mail or newsletters are used to an equally high degree as the homepage by family-owned Austrian Hidden Champions (all 47%). On the other hand, 37% of the family-owned Hidden Champions use public relations for external CSR communication, compared to 47% of the non-family-owned companies.

As already stated, non-family-owned Hidden Champions tend to use public relations instead of flyers or newsletters (35%). Overall, the homepage (47%) remains a significant tool of external communication for all Austrian Hidden Champions.

Internal Communication

Compared to the number of Austrian Hidden Champions that communicate externally, the number of those that communicate internally is higher. Overall, 72% of the Austrian Hidden Champions in this sample communicate activities around CSR or sustainability internally.

Differences cannot be identified between family-owned and non-family-owned businesses in this regard.

In general, the Austrian Hidden Champions in this sample use newsletters or mail to a high degree, with 53% using this method of communication. Furthermore, 44% use the intranet. Of lesser importance for internal communication are public relations (1%) and the homepage (4%).

Overall, family-owned Austrian Hidden Champions use the same means of communication as already described. However, all means (except for mail or newsletters) are used by less than 40% of the family-owned Austrian Hidden Champions.

Compared to family-owned Hidden Champions, non-family-owned Hidden Champions use the intranet to a higher degree (53%). Furthermore, they also use events (41% compared to 34%) and employee magazines (35% compared to 26%) more than family-owned Hidden Champions. This is also reflected in the number of average means of communication used. Non-family-owned Hidden Champions engaging in internal communication use four channels on average, whereas their family-owned counterparts only use three.

CSR budget

The following section provides the results of the analysis regarding the Austrian Hidden Champions' budget for social commitment and ecological activities.

The result regarding the question if Hidden Champions have a budget for social commitment demonstrates that 43% of the analysed Austrian Hidden Champions have such a budget. On the other hand, almost 55% family-owned Hidden Champions have a budget, compared to 41% non-family-owned Hidden Champions.

The analysis regarding the budget size reveals that the average yearly spending of the Austrian Hidden Champions in the sample amounts to 0.4% of their annual revenue.

All in all, the budget of family-owned Hidden Champions tends to be higher on average than the budget of their non-family-owned counterparts (0.5% compared to 0.1%). However, the low number of responses also has to be taken into account for these analyses.

The results regarding the question if Hidden Champions have a budget for ecological activities show that 35% of the Austrian Hidden Champions have a such a budget.

However, 42% of the family-owned Hidden Champions do, compared to 26% of the non-family-owned Austrian Hidden Champions.

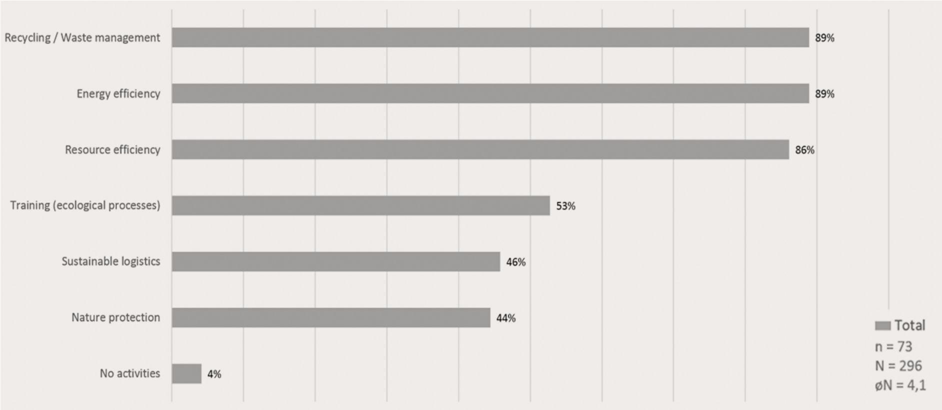
The detailed analysis reveals that the overall budget for ecological activities tends to be as high as the budget for social commitment. However, the low number of respondents has to be taken into account again in this regard. Furthermore, large differences cannot be identified between family-owned and non-family-owned Hidden Champions based on this analysis.

4.5. **Ecological activities and certification**

The analysis of this section addresses the ecological activities conducted by the Austrian Hidden Champions and ecological certification.

The results regarding the ecological activities of Austrian Hidden Champions are presented in the figure below.

Figure 9. **ECOLOGICAL ACTIVITIES OF HIDDEN CHAMPIONS – TOTAL**



Source: Own presentation.

Overall, almost nine out of ten Austrian Hidden Champions engage in waste management and activities to improve their energy efficiency. Furthermore, more than four out of five work on improving resource efficiency. In addition, the analysed Hidden Champions engage in approximately four out of six possible activities on average. Sustainable logistics and nature protection are the least frequently chosen activities; however, both are still conducted by approximately 45%. No activities are only conducted by 4% of the Austrian Hidden Champions.

The ecological activities of family-owned Austrian Hidden Champions tend to be spread similarly to the overall distribution. Again, almost 90% engage in waste management and the improvement of energy efficiency. Approximately half of the family-owned Hidden Champions conduct sustainable logistics and nature protection, which are again the activities that are the least employed.

The most common ecological activity among the non-family-owned Austrian Hidden Champions is the improvement of resource efficiency. This is done by over 90% of these companies. Moreover, almost 90% also engage in waste management.

Overall, almost half of the Austrian Hidden Champions are certified in ecological sustainability – more specifically, 60% of the family-owned and only 35% of the non-family-owned companies are certified.

5. DISCUSSION OF THE RESULTS

This paper shows that most medium-sized world market leaders from Austria regard CSR as success factor. About 73% of the analysed Hidden Champions absolutely or rather agree to this statement, while only 16% absolutely or rather disagree to it. This corresponds to the results of a study that was conducted with 165 Hidden

Champions in the CEE countries and Turkey. About 14% of them showed little or no interest in sustainable business (Zhexembayeva 2013).

Interestingly 79% of the non-family-owned Hidden Champions from Austria define CSR as success factor compared to just 66% of the family-owned Hidden Champions. An actual study that investigated the CSR performances of top businesses in the USA showed similar results: There the non-family businesses significantly outperformed the family businesses on CSR (Yazici/Mcwilliams/Ercan 2018).

Therefore, it is rather surprising that family-owned Hidden Champions from Austria have clearly had CSR in place for longer than their non-family-owned counterparts. Whereas 42% of the analysed family-owned Hidden Champions from Austria implemented CSR more than 15 years ago, only 12% of the non-family-owned Hidden Champions had CSR in place for such a long time. Incidentally, the same question showed no significant difference between smaller and larger Hidden Champions.

The paper also shows the most important benefits of CSR seen by the Austrian Hidden Champions. The Top 5 benefits are stronger image, higher employee motivation, better customer relationships, being an attractive employer and innovation power. On the whole, this corresponds to the results of several studies that focused on the advantages and benefits of CSR (Baldarelli/Gigli 2014; Battaglia/Frey 2014; Ciasullo/Troisi 2013; Coppa/Sriramesh 2013; Lorenz/Gentile/Wehner 2016).

From the point of view of the Austrian Hidden Champions the main disadvantages of CSR are the additional costs and resources. The added cost is also the essential disadvantage for the Hidden Champions in Central and Eastern Europe (Zhexembayeva 2013).

6. RECOMMENDATIONS FOR FURTHER RESEARCH

This paper was based on a quantitative study to gain a comprehensive picture of CSR in Austrian Hidden Champions. A subsequent qualitative investigation is highly recommended to determine the reasons behind companies' execution of CSR. Furthermore, qualitative research would be better suited to examining the connection between CSR benefits and the success factors of Hidden Champions, as this requires an in-depth review. In addition, the negative aspects of Corporate Social Responsibility could also be examined in such a format. It is highly recommended that such a study is again based on the distinction between family-owned and non-family-owned Hidden Champions.

In addition, future research should focus more deeply on certain dimensions of CSR. Aspects beyond the scope of this paper, such as detailed reviews of the social or ecological dimension, should also be considered in the future. For example, this could be a study on the social dimension with a focus on sustainable HR, or further research solely on the ecological sustainability of Austrian Hidden Champions.

Furthermore, a similarly structured study on non-Hidden Champions could bring new insights into the differences between them and Hidden Champions. Target companies for such a study could be small and medium-sized companies to identify differences between the companies that are world market leaders and those that are not. In addition, a study of CSR in large Austrian world market leaders that are not Hidden Champions anymore could also reveal differences.

Lastly, a study on how to implement CSR to efficiently gain its benefits is recommended. Since Hidden Champions are best practise examples, a guideline on how to implement CSR could be an objective of a future study on the topic.

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Assessing the economic relevance of International Niche Market Leaders: empirical indicators and strategic reflections from the Basque Country

This article provides an updated account on international niche market leaders (INMLs) from Euskadi and its surroundings. It shows how the 'hidden champions' phenomenon is in no way a Germanic affair and that many niche players from Spain also display typical hidden champion-features. Similarly, it shows how the Basque Country forms an epicenter of this kind of firms. The paper also demonstrates the macro-economic relevance of INMLs. I.e., how they are instrumental in view of policy aims to base 20% of territorial GDP on industrial activities, to strengthen the Middle Market segment and to develop the foreign trade activities of economies. The paper also provides evidence for the argument that economies that count with above-average INML densities perform better in this regard. Finally, the paper depicts a series of challenges that INMLs face and puts these into perspective.

Este artículo proporciona una descripción actualizada de los líderes internacionales de nicho de mercado (INML) de Euskadi y sus alrededores. Muestra cómo el fenómeno de los «campeones ocultos» no es en modo alguno un asunto germánico y que muchas empresas de nicho de España también muestran características típicas de los campeones ocultos, y en el País Vasco este tipo de empresas forman un epicentro. El artículo demuestra la relevancia de los INML en los asuntos macroeconómicos, tales como: los objetivos políticos de basar el 20% del PIB territorial en actividades industriales, fortalecer el segmento de empresas del mercado mediano (*Middle Market*) y desarrollar las actividades de comercio exterior de las economías. También proporciona evidencias para argumentar que las economías que cuentan con una densidad de INML por encima del promedio tienen un mejor rendimiento en este sentido. Finalmente, el artículo describe una serie de desafíos a los que se enfrentan los INML y los pone en perspectiva.

Artikulu honek Euskadiko eta bere inguruetako merkatu-nitxoen nazioarteko liderren (MNNL) eguneratutako deskribapena ematen du. Ezkutuko txapeldunen fenomenoa germaniari soilik dagokion afera ez dela erakusten du eta Espainiako nitxoko enpresa askok ezkutuko txapeldunen ezaugarriak dituztela. Euskadin era horretako enpresek epizentro bat osatzen dute. Artikuluak MNNLek gai makroekonomikoen ikuspegian duten garrantzia frogatzen du; besteak beste: BPGren %20 jarduera industrialean oinarrituta egotearen helburu politikoak, merkatu ertaineko (Middle Market) segmentuko enpresak indartzea eta ekonomien kanpo-merkataritzaren jarduerak garatzea. MNNLren dentsitatea bataz bestekotik gorakoa duten ekonomiek zentzu horretan errendimendu hobea dutela arrazoitzeko ebidentzia ere ematen du. Azkenik, MNNLek aurre egin beharreko erronka batzuk definitzen ditu eta perspektiban jartzen ditu.

Bart Kamp*
Orkestra-Basque Institute of Competitiveness/Deusto University

Table of contents

Keywords: International Niche Market Leaders, hidden champions, international business, competitive strategy, Middle Market, servitization.

Palabras clave: Líderes en nichos de mercado internacionales, campeones ocultos, comercio exterior, estrategia competitiva, Middle Market, servitizacion.

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1. **INTRODUCTION**

In his series of books on 'hidden champions', Simon (1996, 2009, 2012) points out that small and medium-sized enterprises are more important for Germany's international business performance than its (broad) set of well-known big firms (BASF, Mercedes Benz, Siemens, etc.). As explanatory factors behind the amplitude of medium-sized firms that lead in global markets –and which form the source of origin for hidden champions– he mentions, among other aspects, their specialization in confined niche markets, their long-term commitment to developing and exploiting very narrow product-market combinations, and their preference to keep a low profile and avoid media attention.

* The author gratefully acknowledges that this paper benefited from research activities carried out for SPRI/Basque Trade & Investment (the Basque Government) and the Diputación Foral de Álava. Similarly, it is thankfully acknowledged that discussions with Bernd Venohr on niche markets and leadership in such markets, and with Alicia Coronil and José Antonio Teijelo on the Middle Market, have been very instructive for elaborating on several of the ideas and analyses in the present paper.

Last but not least, the author wishes to express his sincere gratitude to all the firms that have made the analysis of the International Niche Market Leaders phenomenon possible over the past years.

Over time, multiple publications (e.g. Logue, Jarvis, Clegg and Hermens, 2015; Simon, 2017; Audretsch *et al*., 2018) have led the reader to believe that the so-called hidden champion phenomenon and the entrepreneurial mindset and context surrounding it is a typical German(speaking) affair. Moreover, such publications often refer to (socio-cultural) features of the *Mittelstand* concept and therefore insinuate that the hidden champions species is chiefly endemic to Germanic economies.

The former might well be a misconception. To start with, not all companies that are portrayed as hidden champions in German studies are 'hidden'; think of Haribo, Miele or Kärcher. Similarly, not all hidden champions form part of the *Mittelstand*. Companies like Fresenius or Würth simply have too many employees for that. Furthermore, the family business character and the non-separation between ownership and management that is often hailed as a linking pin between (the success of) *Mittelstand* firms and hidden champions is not a *conditione sine qua non* either (think of Tetra, Nivarox, W.E.T. or Gardena).

However, many of these claims have been embraced as fact by authors that originate from non-Germanic countries. In the case of Spain, there are several examples of such reductionistic thinking.[1]

According to the present article, the 'survival' or acceptance of this kind of postulation also has to do with the mistaken generalization of certain cultural stereotypes and a lack of nuance when looking at entrepreneurial traditions within nation-states. On the one hand, this leads to the assumption that Germanic-speaking entrepreneurs have a stronger ability to focus on and specialize in highly delineated skills or markets, whereas entrepreneurs from the Latin hemisphere are comparatively more dispersed (see also Ugarte, 2019). These supposed differences are largely refutable if one recurs to cross-cultural studies that, for example, look at the affinity of populations for single versus multitasking and confinement versus ubiquity. Studies on features of monochronicity and polychronicity (Hall, 1976; Adams and Van Eerde, 2010) and short-term/long-term orientation (Hofstede, 1980; 2001) across countries with a Latin or Germanic signature show that these can be much closer than is widely believed.[2] On the other hand, it leads to a *totum pro pars* ap-

[1] In informational sources, such thinking can be recognized in: https://elpais.com/economia/2017/03/17/actualidad/1489751683_947771.html or in declarations during a Business Breakfast of the Hellenic Spanish Chamber of Commerce, 29 April 2014, by International Director of the Instituto de la Empresa Familiar, Mr Jesus Casado, who echoed the claim that Spain only has 11 hidden champions. This claim can be found in many presentations on hidden champions, and it has been questioned by several Spanish-based scholars (see Kamp and Ruiz de Apodaca, 2015; Kamp, 2017; Perea Muñoz et al., 2017). In formal academic publications, such thinking can be related to the fact that hidden champions research has gained some traction among family business researchers who consequently limit their search of hidden champions to scanning internationally successful family firms (see for instance: Tapies, J., San Roman E. and A. Gil Lopez, 100 familias que cambiaron el mundo - Las empresas familiares y la industrialización).

[2] Certainly, if one focuses on family-led firms or other company forms where ownership is shared among organization members.

ness cultures in assuming that economic and organizational behavior is uniform across nation-states and business culture is identical across countries. More specifically, if one looks at the case of Spain, it must be acknowledged that the business system characteristics (Whitley, 1994, 1999, 2008), the institutions of capitalism (Albert, 1991; Hall and Soskice, 2001) or the social and labor fundaments (Maurice, Sellier and Silvestre, 1982; Lane, 1989) that underpin the Basque economy are quite different from those in other parts of the country or in Spain as a whole. The same goes for the extent to which certain parts of a country (like the Basque Country) rely on industrial activities for Gross Domestic Product compared to other parts of the same country or that country in its entirety.

In the rest of this paper these issues are further elaborated on by focusing on the presence and economic relevance of hidden champions-type firms in the Basque Country (with additional references to the situation in the rest of Spain), while also looking at certain challenges that the firms in question may be facing in the years ahead.

2. OPERATIONALIZING INTERNATIONAL NICHE MARKET LEADERS

The objective of the present paper is to consider companies with a hidden champions-like profile in the Basque Country. For that purpose, and rather than sticking to the label 'hidden champion', this paper makes use of the term '*International Niche Market Leaders*' (INMLs) for reasons of terminological precision and methodological operationalization. For the drawbacks of using the title 'hidden champion' from a research perspective, see Venohr and Meyer (2007), Venohr (2010), Boga (2012), Kamp (2017) or Venohr and Kamp (2019).

INMLs refer to companies:

- that act in narrowly defined niche markets in which they are leaders in terms of market share:
  - they are either the number-one on the European continent
  - or are part of the top three on a global level
- with an outspoken international business outlook that do business across multiple borders:
  - the company's foreign trade share (part of the company's revenues that is obtained from sales outside its domestic market) is above 50%
- that fall into the annual turnover boundaries of the Middle Market:
  - they have an annual turnover of between 20 million and 1 billion euros[3]

[3] See: GE Capital and Warwick Business School (2013), The Mighty Middle: Growth and opportunity in the UK's mid-market, London.

- that primarily develop activities of an industrial nature and who sell their output chiefly in business-to-business (B2B) markets
  - this ensures compliance with the aspect of operating in a niche market or segment with limited visibility to the larger public.

3. INVENTORIZING INTERNATIONAL NICHE MARKET LEADERS

To determine the amount of INMLs present in the Basque Country, a triangulation of information sources and research methods was used. On the one hand, three survey rounds were held among possible INML candidates in 2014, 2016 and 2018, after which the obtained sets of answers underwent a thorough screening for completeness and consistency. Also, extensive follow-up activities with the respondents were carried out in order to obtain additional inputs i.e. to filter out (seeming) inconsistencies and to gather supplementary information to gain a better idea of the information compiled and to improve the interpretation of the data supplied. This was done via written correspondence, phone calls and on-site visits and interviews. In addition, secondary analysis on company data (such as annual reports, websites and other company-own sources) was carried out, on the one hand, and on company events, as covered by industrial market news in the general press and specialized media sources, on the other.[4] To complete the data gathering, time series were developed on turnover figures for the survey participants via SABI (the Spanish branch of the Amadeus database of Bureau Van Dijk). In the event that there were missing turnover values for specific years in SABI, those values were solicited from the companies in question.[5]

4. PRESENCE OF INTERNATIONAL NICHE MARKET LEADERS IN THE BASQUE COUNTRY

Based on the different inquiries carried out, there were 34 companies detected that comply with the full range of the sampling framework criteria outlined under section 2.[6] A considerable number are active in the machine tool building industry, in the supply of wine bottling accessories, in the off-shore well drilling sector, in the supply of components for automotive, eolic and electrical appliances, in electrical equipment manufacturing, in the business of locking systems, in the field of agricultural devices, and in the steel tube production branch.

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4 This represents a bottom-up approach that contrasts with the top-down approach followed by Rammer *et al.* (2019).

5 In parallel, the searching and screening of INMLs in other Spanish regions has been carried out as an ongoing activity since the summer of 2015. This was principally done on the basis of desktop research.

6 For an idea of specific companies, see:
https://www.orkestra.deusto.es/images/investigacion/publicaciones/cuadernos/2017-26.pdf

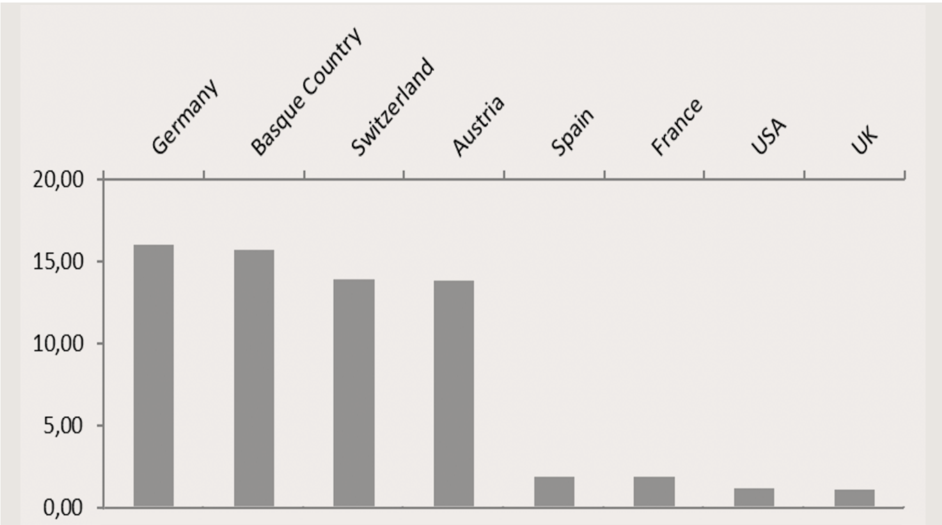
Alongside this core population of 34 INMLs, 10 cases stay below the 20 million annual turnover threshold, while complying with all the other criteria. These companies can be called sub-Middle Market INMLs.

5. BENCHMARKING THE BASQUE INMLs SITUATION

To come to a further appraisal of the quantity and relevance of the INMLs encountered in the Basque Country, in what follows a series of benchmarking exercises is presented.

A first one expresses the number of INMLs from the Basque Country in relation to the Basque population and compares the corresponding ratio to that of other territories where a mapping of hidden champions has taken place.

Figure 1. **INMLS PER MILLION INHABITANTS**

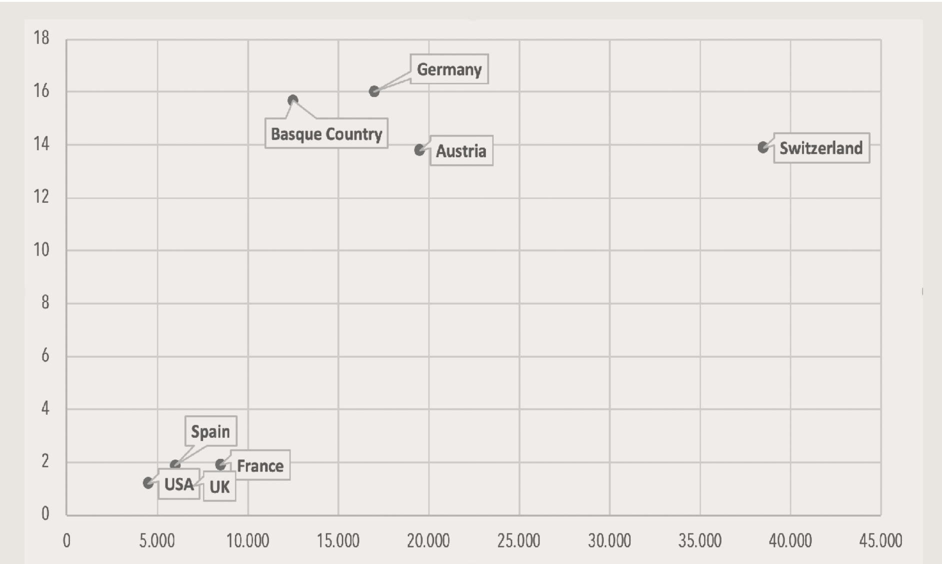


Source: Compiled by the author for the Basque Country and Spain; all other values from Simon et al. (2014).

As seen in the graph above, the Basque ratio falls into the range of values exposed by the Germanic-speaking countries of central Europe, which are supposed to be the most richly endowed with hidden champions across the globe (Simon 2009). To put these ratios into further context, the following observations apply. From a geographical perspective, the Basque Country is a NUTS 2 territory, whereas all other countries in the graph above are NUTS 1 territories (except for the USA, which is *hors category*). Consequently, if we compare the Basque ratio to that of German *Länder* (which also form NUTS 2 territories), we see how several German regions, such as Baden-Württemberg, exhibit values that remain distant from the Basque score (i.e. 25 hidden champions per 1 million inhabitants). At the same time, it is worth highlighting that, compared to the Basque census, the German, Swiss and Austrian inventories are arguably 'inflated' since they include companies devoted to business-to-consumer (B2C) markets and/or companies that have an annual turnover of up to 5 billion dollars.[7]

A further relevant exercise to appraise the Basque case is to juxtapose the density of INMLs with the export value per capita in different territories, as per the following figure.

Figure 2. **INMLS PER MILLION INHABITANTS VERSUS EXPORT VALUE IN USD PER CAPITA**



Source: Compiled by the author and based on the data behind previous table and World Bank data.

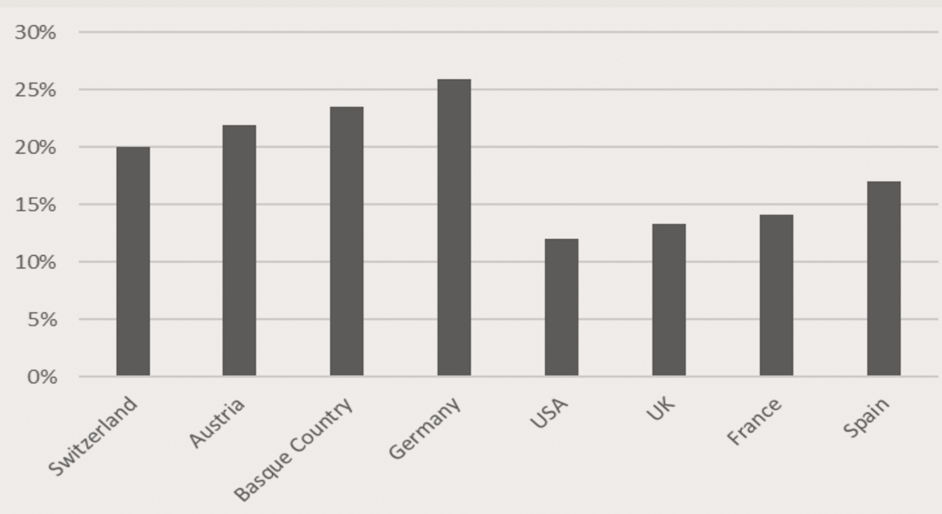
The graph above situates the Basque values close to those displayed by Germany and Austria, albeit at a considerable distance from Switzerland.[8] In the bottom left corner, there is the cluster of France, Spain, the UK and the USA. Together, the results generate the impression that the presence of INMLs and export orientation of economies goes hand in hand.

To make further sense of the INML density in respective places, the industrial orientation of economies is also of interest.

[7] While it can also be presumed that firms under the 20 million annual turnover threshold are included in the inventories from Germany, Switzerland and Austria.

[8] Switzerland's high score is, to a considerable extent, the result of its trade in precious metals. No less than a quarter of its export value stems from selling gold.

Figure 3. **INDUSTRIAL CONTRIBUTION TO GROSS VALUE ADDED**



Source: Compiled by the author and based on the data behind previous tables and Eurostat and World Bank data.

Although the differences in the figure above are less pronounced than in previous ones, particularly between the values for Austria, the Basque Country and Germany, on the one hand, and the USA, France and the UK, on the other, there is a considerable moat. Therefore, it fuels the thinking that the industrial component of a territory's economy influences the presence of INMLs.

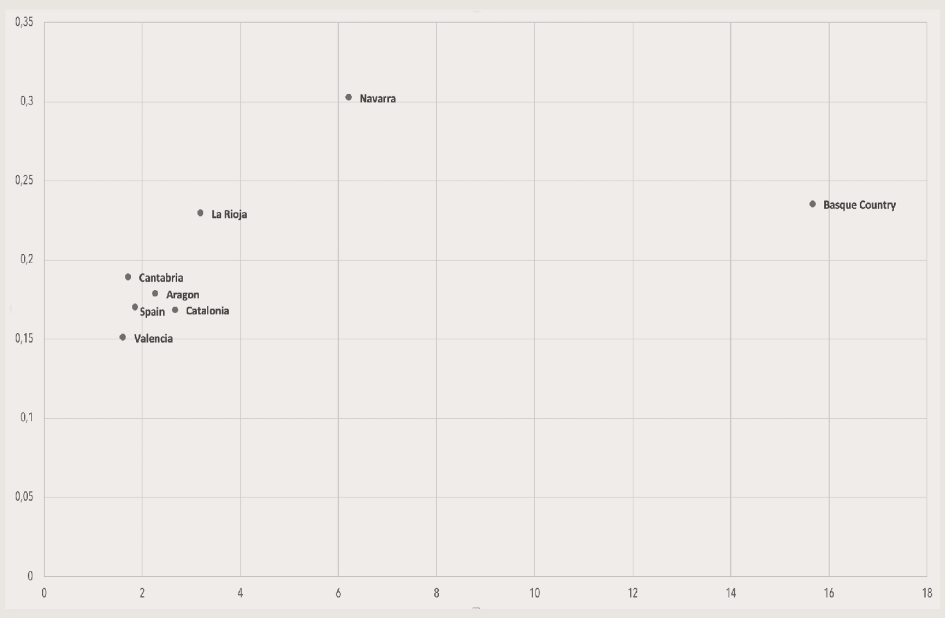
The idea that the industrial character of an economy conditions the probability of encountering INMLs can be probed by looking at a range of territories from the Northern and Eastern part of Spain and Spain as a whole.[9]

In Figure 4, we can clearly see how the Basque Country and Navarra form outliers, whereas all other territories form a type of cluster. When comparing the Basque Country and Navarra, it is striking that, in terms of industry's contribution to Gross Value Added (GVA), their scores are somewhat similar, whereas in terms of INML density there is a sharp difference.

While it would be logical to think that the latter difference may be due to a differing degree of export orientation of the respective economies (which ought to be higher in the Basque Country), Figure 5 proves this assumption wrong.

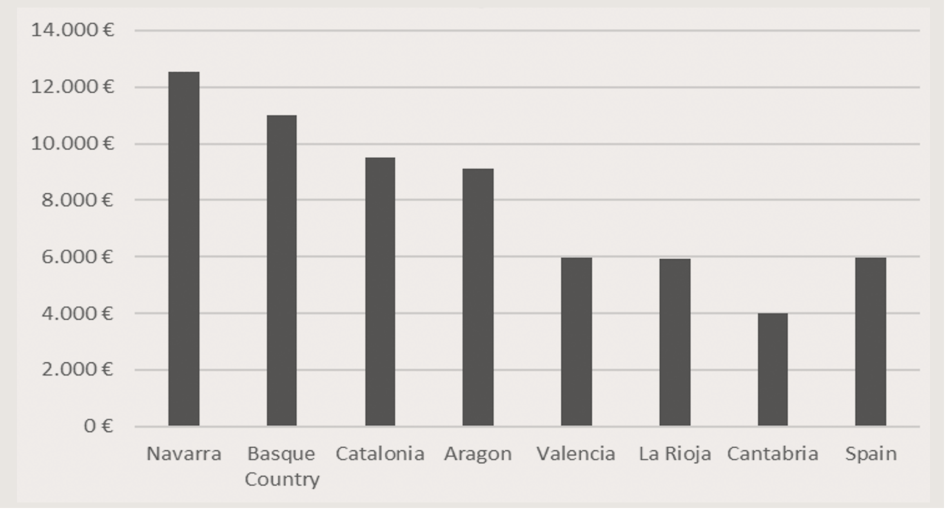
[9] The choice for the autonomous communities in question stems from the fact that they either border the Basque Country or have a fair amount of INMLs. We cannot rule out the fact that the values for INMLs per million inhabitants outside the Basque Country are, in reality, somewhat higher, since the methods and sources deployed to trace them have not been as rigorous as the ones used for the Basque inventory. At the same time, it is unlikely that they would be significantly different from the ones presented here.

Figure 4. **INDUSTRIAL CONTRIBUTION TO GROSS VALUE ADDED VERSUS INMLS PER MILLION INHABITANTS**



Horizontal axis: INMLs per million inhabitants.
Vertical axis: Industrial Contribution to Gross Value Added.
Source: Compiled by the author and based on data from Eustat and INE.

Figure 5. **EXPORT PER CAPITA**

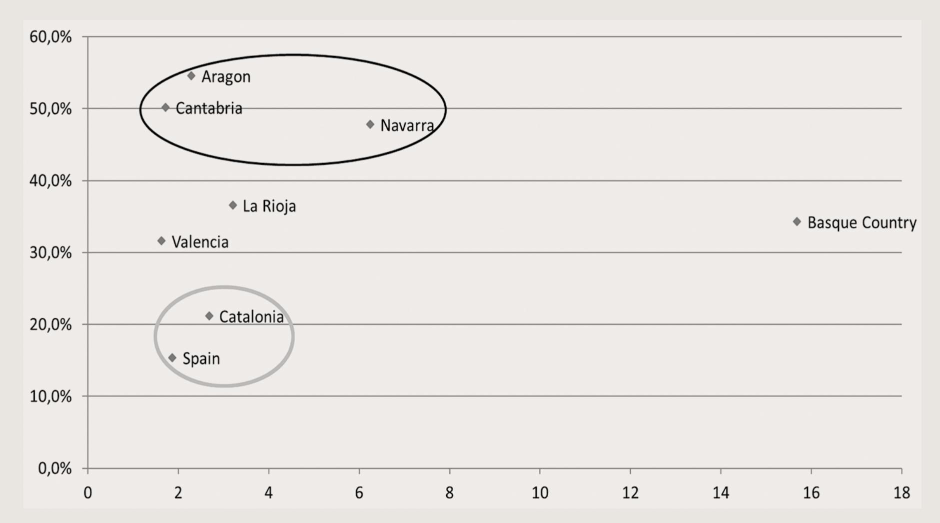


Source: Compiled by the author and based on data from ICEX, Eustat and INE.

In effect, what we see in this regard is that Navarra even outperforms the Basque Country, while also leaving other autonomous communities behind.

A further way to put the INML phenomenon into perspective is by looking at the degree to which export activity is concentrated among a small group of enterprises, or not. The next figure gives an insight into that regard.

Figure 6. **CONTRIBUTION OF THE 10 MAJOR EXPORTERS TO FOREIGN TRADE VERSUS INMLS PER MILLION INHABITANTS**



Horizontal axis: INMLs per million inhabitants.
Vertical axis: contribution of the 10 major exporters to foreign trade.
Source: Compiled by the author and based on data from ICEX, Eustat and INE.

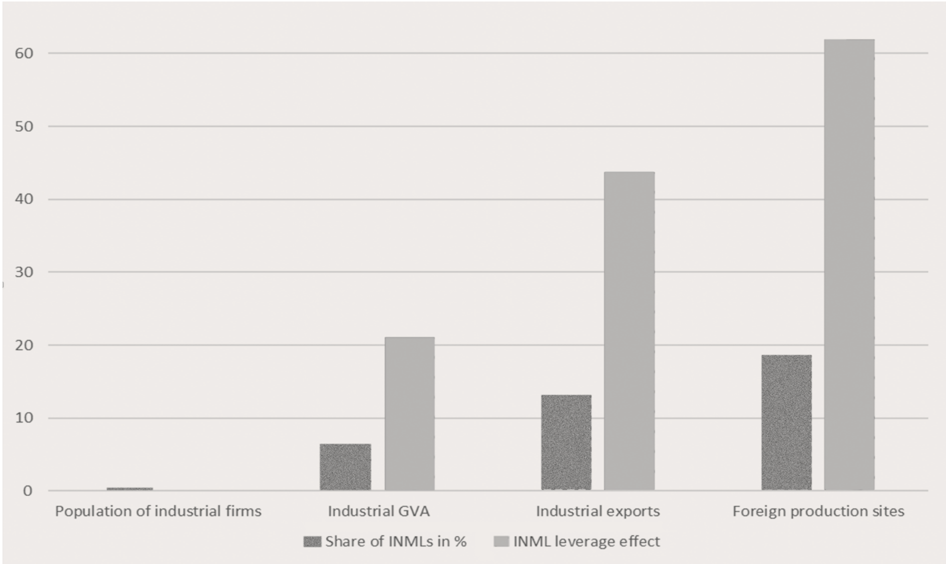
In the top left corner, we find three autonomous communities where the top 10 contributors are responsible for more than 50% of the regional export business. In the bottom left corner, we find Catalonia and Spain showing rather low percentages regarding the top 10 contributors to their export activities. In the middle we find intermediate values regarding the dependency on the top 10 contributors for export for Valencia, La Rioja and the Basque Country. In terms of INMLs per million inhabitants, as we already saw in Figure 4, the graph above shows how the values for all autonomous communities and for Spain as a whole are close to one another, with the Basque Country being the exception in this respect.

With regard to the results above, it can be postulated that in the case of regions like Navarra and Aragon, export power is strongly concentrated in the hands of a select group of companies. In particular, in these respective autonomous communities VW Navarra and Opel Figueruelas top the charts. Therefore, these are regional economies where a specific sector or big business organization acts as the pivot within the regional export apparatus and channels most of the foreign trade. The scores of Catalonia and Spain hint at an opposing situation i.e. one where export power is much more fragmented and relies on limited contributions from a large batch of medium-sized and (very) small enterprises.

The situation in Valencia, La Rioja and the Basque Country forms middle ground between the two former extremes, arguably reflecting a situation where export power is distributed, but relies comparatively more than the other territories on Middle Market firms as the spearhead of the regional export community.

At the same time, what sets the Basque Country apart from Valencia and La Rioja are the following issues. Firstly, the Valencian economy is clearly more service-oriented than the economies of La Rioja and the Basque Country, and can thus be expected to contain less INMLs. Secondly, both La Rioja and Valencia attain rather moderate export per capita values compared to the Basque Country, which also lowers the probability of encountering INMLs.

Figure 7. **LEVERAGE EFFECTS OF INMLS WITH REGARD TO A SERIES OF MACRO-MAGNITUDES**



Source: Compiled by the author and based on data from INE, SPRI and internal inventories.

6. ASSESSING THE MACRO-ECONOMIC RELEVANCE OF BASQUE MIDDLE MARKET INMLS

The 34 cases of Middle Market INMLs obviously represent just a fraction of the total amount of industrial firms in the Basque Country. In 2015, Eustat reported a total of 158,436 enterprises in the Basque Country, of which 10,979 were of an industrial nature. This implies that the 34 INMLs represent a mere 0.3% of the entire population of Basque industrial firms.

However, their relevance in terms of contribution to several macro-economic indicators clearly exceeds their percentage in number.

Against the backdrop that the subset of INMLs forms, a tiny minority of the entire population of industrial firms from the Basque Country, Figure 7 provides an overview of their contribution to a series of macro-economic indicators.

6.1. **In terms of industrial Gross Value Added**

While the share of Middle Market INMLs amongst the total population of industrial firms from the Basque Country is insignificant (0.3%) and hardly visible in Figure 7, its contribution to the Gross Value Added generated by industry exceeds 6% (see the checkered vertical bar). This implies that if we compare the two, we get to a multiplier or leverage effect above 20 (as portrayed by the bar with horizontal and vertical lines). Moreover, the contribution of the Middle Market INMLs to industry's GVA has consistently grown over time as its Compound Annual Growth Rate (CAGR) more than doubles the growth rate of the overall industrial GVA between 2011 and 2017.[10]

6.2. **In terms of industrial foreign trade**

If we look at the industrial export figures from the Basque Country in Figure 7 and compare those with the export value that the Middle Market INMLs generate, we can observe how the corresponding quotient is situated generously above the 10% mark. If we contrast this with the relative population share of the Middle Market INMLs, we get to a multiplier that is above 40.

The rate of foreign trade versus turnover among our sample of Middle Market INMLs is situated above the level of 80% (see Figure 8) and therefore clearly outperforms the average for the Basque industry (close to 35%). Therefore, it illustrates the surplus value that these firms represent for the trade balance, a surplus value that we can label as '*the INML dividend*'.

If we compare the fact that the Basque Middle Market INMLs obtain on average more than 80% of their turnover from sales in foreign markets with the export shares that hidden champions from other countries attain, then the +80%-ratio also stands out positively. Simon (2009, p. 20), for instance, calculates an average of 61.5% for his German sample of hidden champions, while Nguyen (2013, p. 44) establishes a similar average for a sample of French hidden champions (see Figure 8).

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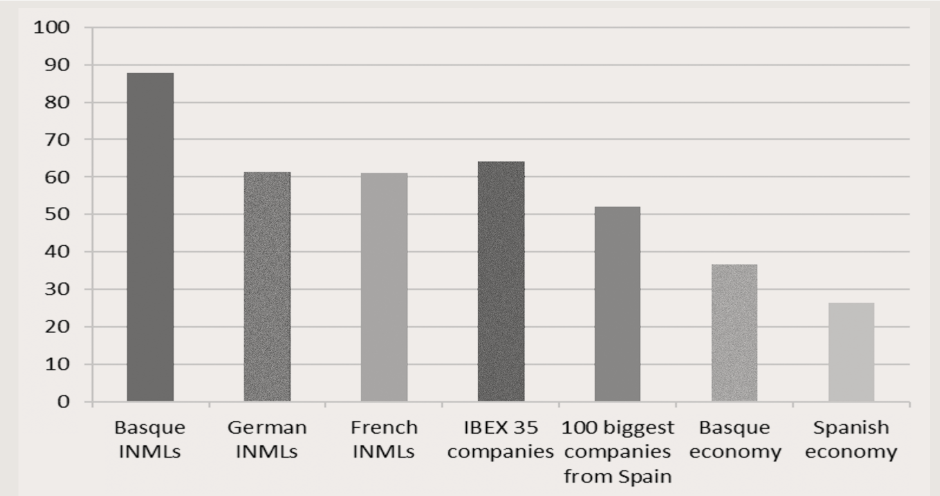
[10] Moreover, compared to the growth rate of the entire Basque economy, the CAGR of the Middle Market INMLs was almost four times as high during the 2011–2017 period.

One reason for this comparatively high percentage of the Basque sample is that it is more likely that German or French hidden champions supply a greater part of their production to industrial clients from their own home base than their Basque homologues (Kamp, 2017). The size of the domestic market for industrial goods in Germany and France, and the fact that more German and French companies act as pivots in global value chains, provides logic to this reasoning.

Furthermore, also in comparison to other collectives of internationalized business from Spain, the performance of the Basque Middle Market INMLs appears as exceptional, as Figure 8 makes clear.

Figure 8. **RATIO BETWEEN EXPORT FIGURES AND TOTAL REVENUES**



Source: Compiled by the author and based on data from internal inventories, Simon (2012), Nguyen (2013), BME, Caldart and Pisani (2016), Eustat, INE and ICEX.

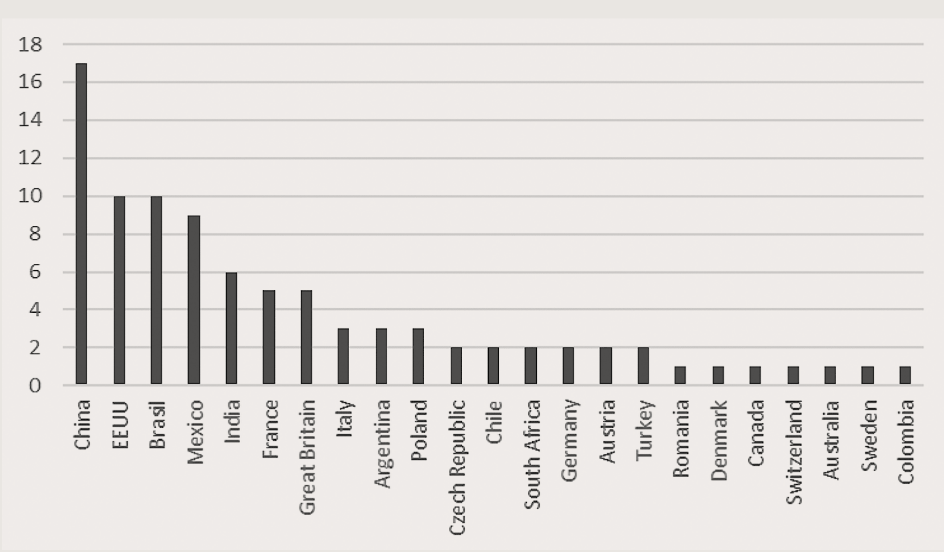
6.3. **In terms of industrial foreign direct investment**

When looking at foreign direct investment activity for production purposes on behalf of industrial firms from the Basque Country (see Figure 7), it turns out that the Middle Market INMLs contribute almost 20% to the total amount of manufacturing establishments that Basque firms hold abroad.[11] This implies a multiplier vis-à-vis their share in the population of industrial firms of around 60.

For an overview of the countries where the companies of our sample have their foreign manufacturing activity, see the following graph:

[11] Calculation based on an internal inventory of factories abroad under control of Middle Market INMLs and the overview of international establishments by Basque companies (see: SPRI/Gobierno Vasco, Plan de Internacionalizacíon Empresarial 2017-2020, p. 140).

Figure 9. **COUNTRIES WHERE BASQUE MIDDLE MARKET INMLS COUNT WITH MANUFACTURING ESTABLISHMENTS**



Source: Compiled by the author and based on data from internal inventories.

The data above demonstrate that the Basque Middle Market INMLs are strongly committed to sustaining and improving their position on international markets. In parallel, they show an ambidextrous approach to internationalization in the sense that they combine low equity (export) and high equity (foreign direct investment) entry modes to foreign markets (Orkestra-IVC 2017).

If we look at the geographical spread that the analyzed firms attain via their foreign productive settlements, we see that China, the USA, Brazil and Mexico stand out. In light of the discussion on developing '*insidership*' in rapidly growing markets, such as China (Venohr and Kamp, 2019), the figure above shows that the Basque Middle Market INMLs are taking these markets in their stride and most of them have reached at least stage 3 of Ohmae's globalization model (1990)[12].

A further look at the places where the sampled companies have established production plants reveals that there are few physical settlements in '*next frontier*' markets, such as Southeast Asia or Africa. This is arguably in line with the fact that most of the firms in question are B2B players that —from a geographical perspective—

[12] Ohmae (1990) argues that for firms to compete successfully on global markets, they must increasingly transfer key activities and competencies to their main foreign markets and ultimately become fully globalized. He distinguishes five stages in this regard: export only (stage 1), establishing foreign marketing, sales and service operations (stage 2), adding manufacturing activities in foreign locations (stage 3), adding R&D activities in foreign locations (stage 4), achieving complete globalization (stage 5).

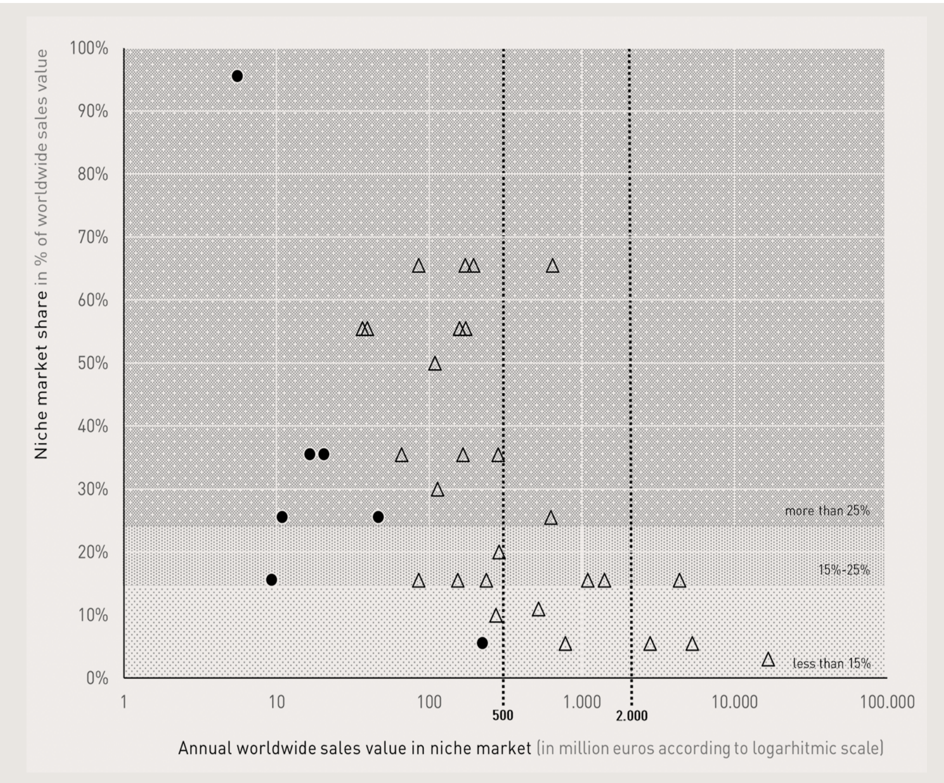
act as diligent followers (move into and exploit markets once their potential is proven; often triggered by follow-the-client dynamics) more than early or first movers (exploring new territories first-hand). For this reason, in terms of '*geographic ambidexterity*', these companies may lean more towards exploitative than explorative behavior (Kamp, 2017).

7. STRATEGIC MODUS OPERANDI OF BASQUE MIDDLE MARKET INMLS

7.1. Market segmentation and niche positioning as a strategy for growth

INMLs are known for staying away from classical definitions of markets and for applying their own market delineations in an autonomous fashion. This allows them to segment and define markets in an innovative manner, often leading to 'extreme' forms of segmenting markets and determining target audiences.

Figure 10. **MARKET SHARES OF BASQUE INMLS AND GLOBAL SALES VALUE IN THE NICHE MARKETS THEY ATTEND**



Source: Compiled by the author and based on data from internal inventories.

While such a focused approach can be positive for specialization and locking in specific customer segments, it can backfire in terms of the size of the total addressable markets that these firms can target. Among others, Venohr (2010) warns of these kinds of reductionistic practices.

Consequently, and in their attempt to appear to be meaningful players in a market, there is a risk that companies narrow their market definition to such an extent that they automatically come out as the leading party.

In the terminology of Kim and Mauborgne (2005), this would turn blue oceans into blue lagoons. In association with their work, Figure 10 shows the positions of a series of Basque INMLs and their market position in terms of «the share that an INMLs holds in the worldwide sales value of the niche market that they operate in» (vertical axis) and «the worldwide sales value that goes around in the niche market in question on an annual basis» (horizontal axis).[13]

For the sake of argument, if we apply the taxonomy from Table 1 to Figure 10, we observe how most INMLs operate in lagoon-sized niche markets, whereas very few are active in niche markets the size of an ocean. In parallel, we can discern how the majority hold a substantial market share in their niches and can thus presume to be 'swimming' in blue-colored waters.

Table 1. **NICHE MARKET TAXONOMY IN FUNCTION OF GLOBAL SALES VALUE AND INMLS' MARKET SHARE**

	Annual worldwide sales in niche market (< 500m euros: lagoon; 500m-2 billion euros: sea; > 2 billion euros: ocean)		
Market share of INMLs in niche market (> 25%: blue ; 15-25%: purple; < 15%: red)	Blue lagoon	Blue sea	Blue ocean
	Purple lagoon	Purple sea	Purple ocean
	Red lagoon	Red sea	Red ocean

Source: Compiled by the author.

Overall, we find that the blue lagoon is the metaphor or category that is most representative for the niche markets in which the INMLs are active (50% of the cas-

[13] The triangles correspond to Middle Market INMLs, whereas the rounds correspond to sub-Middle Market INMLs. Nota Bene: this is the only graph in this paper where the scores of sub-Middle Market INMLs are included.

es). Next in line is the purple lagoon (approximately 15% of the cases), followed by the red ocean (almost 10% of the cases).

The fact that most cases are active in international markets of a reduced size may raise questions as regards the outlook for growth of INMLs. The posture that the respective firms adopt to address this issue can be illustrated as follows:

Niche entry

1. Go from a broad variety of product-market combinations to a focus on one or a few to foster shaping (a) pronounced niche market position(s) in the target market(s) selected. Pick your battles (fishing grounds) selectively, and fight (catch) them. Corresponding INML quote:
    - «We realized that we had to part ways with client-specified or license-based manufacturing of all kinds of items, and develop our own product line instead. We also became conscious that it would not make sense to continue with a very broad portfolio of products, and that the way forward would be to focus on a limited choice of product areas in which we could aspire to be among the best-in-class».

Niche (re)cycle

2. Reinvent and re-segment grow(i)n(g) markets and position oneself in a particular niche, also if that means that you convert yourself (temporarily) into a small fish in a small pond (lagoon). Corresponding INML quotes:
    - «Customers form an endless source of inspiration and information, and their leads always allow opening up and positioning oneself in new market spaces. Moreover, from the supply side you can contribute to shaping such market spaces and turn them into moving targets».
    - «While several of our peers responded to the mainstreaming of demand by offering standard equipment, we specialized in customized solutions. This has placed us, together with a couple of others in the world, in a league of our own and while we do not have the production scale that our bigger competitors have, we have managed to carve out a niche audience for ourselves where we can differentiate our offer and earn higher margins».
    - «Instead of operating in one big mainstream market, we chose to operate in as many niches as we can».
3. Continue in small niches and become a big player in it; turn oneself into a big fish in a small pond. Corresponding INML quote:
    - «By continuing to grow and claim a high market share in our niche market, we have changed from a friendly fish into a white shark that is able to defend its turf and discourage larger-scaled outsiders from entering the market and taking a firm foothold».

4. Expand with the niche and grow big; increase the company size as demand scales up to become a big fish in a large pond (or ocean). Corresponding INML quote:

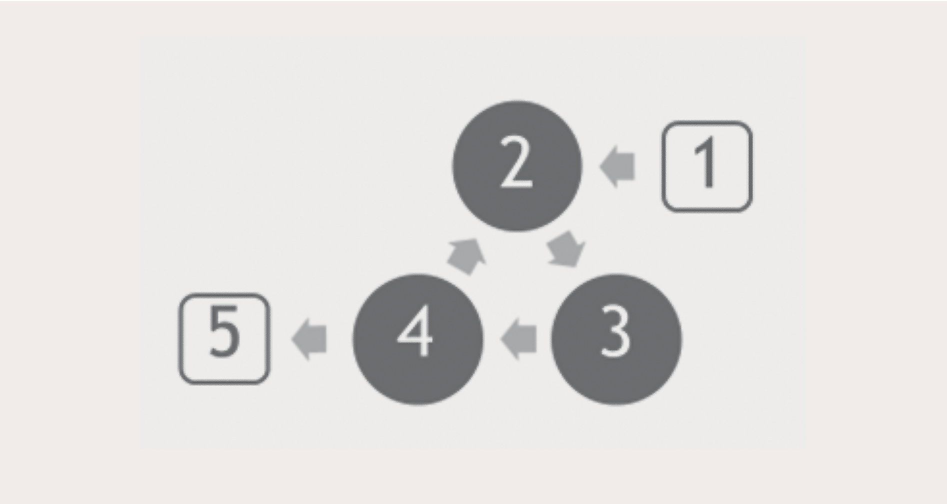
    - «When we started rolling out our current cash cow, the size of the market did not exceed that of a bath tub. But by pushing the envelope and educating the demand side, who eventually saw the advantages of our propositions compared to the standing offer at the time, we expanded the market and grew along with it».[14]

Niche exit

5. Go from small niches to broader markets and grow. Sacrifice niche domination and move into markets of scale to become a small fish in a large pond (or ocean). Corresponding (ex-)INML quotes:

    - «We aim to leave the niche behind».
    - «We could have opted for being the king of the neighborhood and stay small, but we chose to spread our wings and fly into a much broader market territory, implying that we need to work our way up again».

Figure 11. **OPTIONS FOR COMPANIES TO ENTER, EXIT AND REPOSITION IN NICHE MARKETS**



Source: Designed by the author.

[14] A closer look at the trajectories of the different INMLs reveals that the lion's share of them started out as pioneers in their niche markets and acted as first movers, with many of them being able to conserve their initial lead.

7.2. **Global reach**

The Basque Middle Market INMLs have an extensive international radius of action, which can be discerned in sections 6.2 and 6.3. To put their international profile into further context, it is possible to characterize them in line with the hidden champion *Leitmotiv* of «Deep specialization in highly specific pockets of demand» + «Broad geographic diversification of their market presence». Against that backdrop we can devise two axes that assess:

- The degree of global coverage in terms of the number of continents in which they have sales.
- The granularity of their presence in those different continents in terms of the average number of national markets to which they sell.

Together, this allows an appraisal of the global reach of the firms in question.

Based on the two axes above and the corresponding data from the Basque Middle Market INMLs, we can classify them in the following manner:

Table 2. **CATEGORIZATION OF BASQUE MIDDLE MARKET INMLS IN FUNCTION OF THEIR GLOBAL REACH**

<table>
<tr><td colspan="2" rowspan="2"></td><td colspan="2">Global coverage</td></tr>
<tr><td>Limited (2 continents)</td><td>Extended
(3 or more continents)</td></tr>
<tr><td rowspan="3">Continental granularity</td><td rowspan="2">High (10 countries or more per continent)</td><td rowspan="2">(Bi)continental players
0%</td><td>Granular globalizers
22%</td></tr>
<tr><td>Nearly granular globalizers
22%</td></tr>
<tr><td>Low (up to 10 countries per continent)</td><td>Cherry-picking international firms
8%</td><td>Bridgehead globalizers
46%</td></tr>
</table>

Source: Compiled by the author and based on data from internal inventories.

The percentages in the table above indicate that the Basque Middle Market INMLs form a subset of highly globalized companies, given that the quasi-entirety (90%) is active on a minimum of 3 continents across the globe. Moreover, apart from the fraction (8%) that is only active on 2 continents, the difference among the highly globalized firms consists of the number of national markets that they attend on average on the different continents in which they are active.

The most profoundly globalized companies form the category of '*granular globalizers*'. These are firms that sell in 5 to 6 continents[15] and in each of them they

[15] Africa, Asia, Europe, North America, South America and/or Oceania.

have sales in a minimum of 15 countries. As a result, they have achieved a broad penetration of the continental markets that they deal with. This profile is typical for companies that offer universal components with a lot of airplay or 'general purpose technologies'[16] that respond to demands and applications that can be encountered across the globe. For such offerings, demand is not concentrated in a few specific markets, but rather dispersed. This makes the global demand for these products take the form of a 'long tail' (Anderson, 2006; Brynjolfsson *et al.*, 2011) with a fragmented demand coming from a large number of countries.

The category of '*nearly granular globalizers*' represents companies with presence on 4 to 6 continents and sales in 10 to 15 countries per continent, whereas the category of '*bridgehead globalizers*' consists of companies that typically sell in 3 to 4 continents and in up to 10 countries on each of these continents. Many bridgehead globalizers operate in value chains where the next segment downstream (the customers or buyers that these bridgehead globalizers deal with) is highly oligopolized.[17] The buyers from this segment tend to be large firms that centralize their production and purchasing activities in a small number of locations across the globe. As a consequence, the supplies that are targeted to these customers translate into export flows to or foreign production activities in just a few countries. Accordingly, this kind of oligopolized market also reflects the so-called Pareto rule, where approximately 20% of the clients generate some 80% of the turnover. Companies that manage to become the main (or sole) supplier to this kind of value chain segments, where only a small set of firms run the show almost automatically, set themselves up for global leadership in their field. Alternatively, bridgehead globalizers can be firms that count with a global network of distributors or sales representatives in specific countries, and hence their business is concentrated in those (national) markets.

The category of '*cherry-picking international firms*' contains companies that are on their way to transforming themselves into global actors as well as firms whose products respond to a demand that is confined to specific ('lead') markets. These lead market players are typical *nichist* firms that satisfy the needs of users concentrated in specific spots across the world. Consequently, for them there is no need (yet) to be present with their products in all corners of the world.

Together, and based on the data presented in the table above, we can conclude that the Basque Middle Market INMLs have a considerable global reach.

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[16] General Purpose Technologies refer to technologies that have many different uses and are taken up across a wide range of sectors. Examples are: microprocessors, material handling systems, mechanization processes, ERPs or the internet.

[17] This forms the most 'populous' category, which is consistent with the observation in section 6.3 that most of the firms in question are B2B players that —also from a geographical perspective— act as diligent followers of their industrial customers.

7.3. **Servitization**

Associated with the observation in section 7.1 that niche market companies may be inclined to narrow their market definition in order to appear as meaningful players in a specific market, there is also the risk that they identify themselves with a particular product. This can imply that they overlook the function that the goods they offer fulfill and/or the value that it generates when in use by its customers (Vargo and Lusch, 2008). This relates to the question of «*what business are you in?*» (Levitt, 1960) and is also connected to the contemporary debate around servitization. Both fuel the thought that manufacturers should evaluate whether they ought to add services to their market propositions to extend their relationship with customers and whether they should become a partner in the value creation processes of the buyers of their goods, instead of operating chiefly as an input provider.

When interpreting servitization as the process through which manufacturing companies increase the turnover percentage that stems from service delivery as a way to gain competitiveness (Vandermerwe and Rada, 1988), it appears that the Basque Middle Market INMLs are only making tentative progress in this regard. To start with, the sway that service business holds in our sample is rather small. A quarter of the consulted companies obtains no turnover at all from services and the average percentage that service business represents is between 5 and 6%. While this percentage is higher than the volume of service business amidst the total industrial turnover in the Basque Country (Kamp and Sisti, 2019), the share is low compared to the levels attained by industrial firms that are portrayed as trailblazers in servitization, such as ABB, Otis, Voith or Wärtsilä.

The modest percentages we observed among the Basque Middle Market INMLs have a variety of explanations. Firstly, it turns out that the majority of firms acknowledge that they provide (part of) their services without charging for them. Secondly, it can be observed that the companies are clearly more into providing basic services (repairs, maintenance and spare parts) than smart services.[18] This may also curtail the income to be obtained from service provision. Thirdly, another widespread practice is the offering of package deals where goods and services are sold via an all-in price. In these cases, afterwards the income is often written in the books as product sale. Fourth and finally, almost 90% of the companies indicate that they solely offer services to clients that already buy products from them. This implies that the services will have a product-supporting character and may not be conceived as a business line in its own right and with the intention of building up a user audience

[18] Smart services refer to knowledge-and information-intensive services, involving big data analysis and IT solutions around connected assets to enable both the monitoring of, decision-taking on and execution of the services in question (Kamp, 2018). Examples can be (Grubic et al., 2014): predictive maintenance solutions, remote control interventions, productivity/output performance management tools, energy/material consumption and idle time vigilance

of its own. This also hints at the subordinate role that service business will typically play for the companies in question.

Overall, the pace of servitization among the Basque Middle Market INMLs seems to be slow, and while this should not be so surprising among companies that may adhere to a product dominant logic (Vargo and Lusch, 2008), it may be worthwhile to develop their service businesses further.

8. FINAL REFLECTIONS AND IMPLICATIONS

The findings that have been reviewed in the present paper make it clear that the so-called hidden champions phenomenon is by no means a purely Germanic affair, and that it is also present in other economies/societies, such as the Basque Country. With a total of 34 International Niche Market Leaders of a Middle Market size (invoicing between 20 million and 1 billion euros per year), leading to a ratio of approximately 15 INMLs per million inhabitants, the Basque Country is well endowed with this company species.

The data presented across this paper also visibly demonstrate the added value of these companies for the wider –in this case Basque– economy. Both their contribution to (industrial) GVA, foreign trade and production plants abroad is above par and provides a genuine dividend to several transcendental macro-magnitudes.

At the same time, the analyses reveal certain points that deserve further attention due to their relevance for the future market and competitive strategies of INMLs:

While the subset of INMLs show a strong agility and nimbleness with regard to positioning themselves in niches that they can exploit (see ‘Niche entry’ in section 7.1), their focus on niche markets also implies that they should beware of getting locked into niches that implode over time. Figure 10 revealed that most companies operate in niches with a relatively reduced demand volume. While this means they stay under the radar of bigger firms with less interest in markets that do not move large sums of money, there is also a risk that demand in these niches dries up or becomes mainstreamed and thus comes into sight of bigger players. In such situations, and provided that INMLs want to stick to their niche posture, re-invention and re-segmenting of markets may be indicated (see ‘Niche (re)cycle’ sub 2. in section 7.1). In general, INMLs should know how to cope with niche exit strategies and/or to grow with the demand curve should their niche expand (see «Niche (re)cycle» and «Niche exit» sub 3.5 under section 7.1). Another way of dealing with volatile niche dynamics is to apply niche hopping or market alignment tactics via soft diversification and to act in related markets as if they were communicating vases.

In a similar fashion, the paper makes the relevance of servitization clear for the Basque Middle Market INMLs. Until now, companies only seem to have made a tentative start with developing their service business, and, from a sales development point-of-view, a customer proximity perspective and a general competitiveness viewpoint, they may have to crank up their activity in this regard.

Additionally, with regard to the question of internationalization, the main point for attention seems to be that although the sampled companies are highly internationalized, there may be room for a further diversification of their geographic presence across the globe. Notably '*next frontier*' markets or regions, such as Southeast Asia or Africa, are currently absent in the commercial plans of many cases. In the coming years, the companies in question may want to reconsider this position.

Finally, and more as an *encore*, there is the issue of organic or non-organic growth and alliances with third parties on the part of INMLs (see also Ugarte, 2019). INML-type firms are often portrayed as favoring self-sufficiency and this may obstruct the extension of a growth path from a certain point on. Considering that markets become more and more globalized and the fact that the pace and content of global demand may become dictated in previously less important places, INMLs may have to develop a stronger insider position in such places (Venohr and Kamp, 2019), demonstrating more openness to join forces with foreign entities (e.g. in the form of Joint Ventures) and incorporating foreign talent to get to the next global level (Simon, 2012).

Consequently, INMLs might be giving up (part of) their sovereignty and *modus operandi*. The impact that this can have on their strategic course and market positioning is certainly something that deserves further monitoring and vigilance. Already in present times, (financial) alliances with third parties (either or not from foreign places) are a growing reality, as the reporting on entry of capital into INMLs and hidden champions from Germany and the Basque Country reveal.[19] When referring to the current situation inside the Basque Country and Spain as a whole, our data tell us that for approximately a quarter of the Middle Market INMLs a substantial part of ownership is in the hands of external shareholders (either industrial or financial organizations).[20]

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19 https://www.wsj.com/articles/indian-firms-go-hunting-in-germanys-mittelstand-1428697627
https://ged-project.de/videos/competitiveness/impact_of_emerging_markets/chinese-companies-shop-for-germanys-hidden-champions/
https://www.orkestra.deusto.es/es/actualidad/noticias-eventos/beyondcompetitiveness/1461-campeones-cotizados

20 In several cases, these external parties do not form the majority, but do, however, represent the single actor with the highest participation and/or voting rights.

The fact that many of the INMLs from the Basque Country are cooperatives can provide some counterweight to this process, whereas regions with INMLs or hidden champions that are primordially family businesses may be sensitive to ownership changes during succession planning cycles from one generation to the next.[21]

[21] https://www.ey.com/Publication/vwLUAssets/ey-indian-investments-in-germany/$FILE/ey-indian-investments-in-germany.pdf

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The Spanish decentralized competition enforcement system: When David met Goliath

When it comes to the enforcement of Competition law, the Spanish system is characterized by its decentralization, which entitled the transference of certain competences from the central government to regional governments. While the benefits of the referred decentralization are diverse, the existence of a multidivisional plurality of competition enforcers forces to resort to conflict management techniques in order to allocate the competent organization to hear over a particular competition law infringement. However, given the practice of the *Junta consultiva en materia de conflictos de competencia*, **the different level playing field for the national competition authority and the regional competition authorities in relation with the system to solve disputes regarding the attribution of competences damages the decentralized enforcement system recognized in the Spanish Constitution.**

Con relación a la aplicación del Derecho de la competencia, el sistema español se caracteriza por su descentralización, que supuso la transferencia de ciertas competencias del gobierno central a los gobiernos regionales. Si bien los beneficios de la referida descentralización son diversos, la existencia de una pluralidad multidivisional de autoridades encargadas de su ejecución obliga a recurrir a técnicas de gestión de conflictos para poder asignar el organismo competente para decidir sobre una determinada infracción de la Ley de competencia. Sin embargo, analizada la práctica de la Junta consultiva en materia de conflictos de competencia, se aprecian desigualdades entre la autoridad nacional de competencia y las autoridades regionales de competencia con relación al sistema de resolución de conflictos en materia de atribución de la competencia, lo que perjudica el sistema de aplicación descentralizada reconocido en la Constitución española.

Lehia zuzenbidearen betearazpenari dagokionez, sistema espainiarra deszentralizatua da; horrek ekarri zuen gobernu zentralak erregio-gobernuei eskumen zehatzak eskualdatu behar izatea. Aipatutako deszentralizazio horren onurak anitzak diren arren, Lehia zuzenbidearen betearazpenaz arduratzen diren agintaritzak ugari eta eremu ezberdinetakoak direnez, sor daitezkeen eskumen-gatazkak konpontzeko liskarren inguruko kudeaketa-teknikak erabili behar dira lehiari lotutako arau-hauste zehatz bat nork ebatziko duen ezagutu ahal izateko. Hala eta guztiz ere, Lehiaren gatazken inguruko batzorde aholkuemailearen jarduna aztertuta, eskumen-esleipenaren inguruan sor daitezkeen gatazkak ebazteko sistemari dagokionez, estatuko lehia agintaritzaren eta erregioen lehia agintaritzen arteko ezberdintasunak begibistan daude; eta horrek Espainako Konstituzioan aintzatetsi duen aplizazio deszentralizatuaren sistema kaltetzen du.

Noemí Angulo Garzaro*
Department of Security of the Basque Government
Amaya Angulo Garzaro
Department of Tourism, Trader and Consumer of the Basque Government

Table of contents

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Palabras clave: descentralización, cumplimiento del Derecho de competencia, autoridades regionales de la competencia, atribución de competencias.

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1. **INTRODUCTION**

The enforcement of State legislation by the Autonomous Communities characterizes our constitutional regime.[1] Competition law is just another branch of the Spanish legal corpus that exemplifies it. The existence of a multidivisional

* The authors wish to thank the anonymous reviewers for their insightful comments and suggestions during the evaluation process.

[1] The legal pluralism is one of the main characteristics of the Spanish decentralized model of distribution of powers. This legal pluralism results from the attribution of regulatory competences to the Autonomous Communities in certain matters. For an extended explanation on the genesis of the distribution of competences within the framework of the Spanish Constitution vide ARZOZ SANTISTEBAN, X. «Alternativas a la solución judicial de los conflictos competenciales en materia de Defensa de la Competencia», in Revista de la *Administración Pública*, no. 164, May-August, 2004, p. 88; VELASCO RICO, C.I. *Delimitación de competencias en el Estado autonómico y puntos de conexión.* Barcelona, Generalitat de Catalunya, 2012, p. 39.

plurality of competition enforcers forces to resort inevitably to conflict management techniques in order to allocate the competences of each so-perceived empowered entity[2].

Several improvements have been envisaged to reduce the traditionally contentious nature of the disputes over the competences to enforce competition legislation. However, practice shows what seer scholars had already announced: the system currently in force was conceived mainly to solve disputes, not to avoid them[3].

In our research we aim at demonstrating that, despite the burdensome procedure designed to solve dubious allocation cases, the regional competition authorities are essential and desirable when it comes to an effective enforcement of the Spanish Competition law[4]. In doing so, we will devote the first part of our research to analyze the basics of the Spanish competition law enforcement system, as its actual shaping is due to the perception that, given our legal tradition, the benefits of a decentralized system outweigh its disadvantages. Whereas, in the second part of our research, we will focus on the mechanism envisaged to solve the disputes that may arise when allocating the competence to hear over a specific competition law case, as it has been subject to criticism and it is key when it comes to discern which authority is ultimately competent for the enforcement of competition law. In this regard, we will conclude that, analyzed the cases solved by the *Junta consultiva en materia de conflictos de Defensa de la Competencia* (hereinafter, *Junta consultiva en materia de conflictos*), there is a different level playing field for the national competition authority and the regional competition authorities in relation with the system to solve disputes regarding the attribution of competences, which ultimately risks damaging the decentralized enforcement system.

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[2] According to article 15 of the 15/2007 Spanish Competition Act, BOE n. 159, of 4 July 2007 [hereinafter, 15/2007 LDC], http://www.boe.es/buscar/act. php?id=BOE-A-2007-12946 (last consulted: 20.07.2018): «The coordination between the National Competition Commission [current, *Comisión Nacional de los Mercados y la Competencia* (CNMC)] and the competent Autonomous Communities will be done in accordance to the Law 1/2002, of 21 February, on the coordination of the competences of the State and the Autonomous Communities in matters of Defense of Competition».

[3] Although in the following section we will come back to how the literature perceived the system to attribute the competence to enforce competition law, for all *vide* CRUCELEGUI GÁRATE, J.L. «Los modelos de aplicación descentralizada del derecho de la competencia en la UE y en el Estado español», in *Cuadernos Europeos de Deusto*, Vol. 38, 2008, pp. 81-129.

[4] Law 1/2002, of 21 February, on the coordination of the competences of the State and the Autonomous Communities in matters related to the Defense of Competition, BOE no. 46, of 22 February 2002, http://www.boe.es/buscar/act.php?id=BOE-A-2002-3590 (last consulted: 20.07.2018) [hereinafter, Law 1/2002].

2. THE COMPETITION LAW ENFORCEMENT SYSTEM IN SPAIN: AN APPROACH TO THE SPANISH DECENTRALIZED ENFORCEMENT SYSTEM

There can be observed two types of structures when it comes to Competition law enforcement: decentralized and centralized[5]. While in the first structure –decentralized– part of the enforcement power of central competition authorities is delegated to regional or sub-national competition authorities, in centralized structures central competition authority retains the enforcement power.

The Spanish competition enforcement system presents a decentralized structure, where the *Comisión Nacional de los Mercados y la Competencia* (hereinafter, CNMC) is the central competition enforcement authority and the autonomous bodies for the defense of competition are the sub-national competition enforcement authorities[6]. This process of decentralization is inspired both by the German and the EU system[7].

2.1. Opting for a decentralized enforcement system: a descriptive evaluation of the advantages and disadvantages of such an option

Economic analysis has pointed out several benefits of a decentralized system[8]. On one side, a decentralized structure may enable competition between various ju-

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[5] UNCTAD. *The attribution of competence to community and national competition authorities in the application of competition rules*, TD/B/COM.2/CLP/69, Geneva, 23 May 2008, p. 3.

[6] To date, the Spanish regional organisms are the following: Agency of Defense of Competition of Andalusia, Basque Competition Authority, Catalonian Competition Authority, Galician Competition Council, Court for the Defense of Competition of Castilla-León; Jury for the Defense of Competition in Extremadura; Commission for the Defense of Competition of the Valencian Community and Court for the Defense of Competition of Aragón, as listed by the CNMC, https://www.cnmc.es/2017-02-21-la-cnmc-y-las-autoridades-de-competencia-autonomicas-han-celebrado-en-madrid-el-consejo (last consulted: 20.07.2018). As for the case of Madrid, the Canary Islands, the Region of Murcia and The Foral Community of Navarre, their regional organisms are in charge of conducting the pre-trial phase, while the CNMC is in charge of the resolution. There is no regional organism in charge of competition enforcement in the following Autonomous Communities: Asturias, Castilla La Mancha, Balearic Islands, La Rioja and Cantabria.

[7] The former is characterized by a decentralized enforcement of the competition law by the German State and the Länders since 1958; whereas the latter culminated with the approval of the Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, Official Journal of the European Communities L1/1, of 4 January 2003, *vide* PASCUAL PONS, C. «La descentralización de la defensa de la competencia en España y la UE», in *La Reforma de la Defensa de la Competencia: claves y retos de futuro*, San Sebastián, 2-4 July 2007, p. 2.

[8] For an in-depth comparative analysis between the desirability of a decentralized competition enforcement structure versus those of a centralized structure, *vide* JIMÉNEZ GONZÁLEZ, J.L. and CAMPOS MÉNDEZ, J. «Efectos de la descentralización de la política de defensa de la competencia», in *Universidad de las Palmas de Gran Canaria,* Documento de trabajo 2004-09, September 2004, http://www2.ulpgc.es/hege/almacen/download/43/43984/jimenez_campos_2 004_efectos_de_la_descentralizacion_de_la_pdc_dt_ulpgcull.pdf (última consulta: 20.07.2018), pp. 7-11.

risdictions –in the case of the Spanish system, between sub-national jurisdictions–. Thus, competition between jurisdictions may foster a learning process whereby understanding concerning the effects of alternative legal solutions to similar problems may be increased[9]. On the other side, decentralization addresses informational asymmetries between competition agencies and enterprises –the principal-agent relationship–[10]. Placing an authority closer to the enterprises may reduce agency costs, as it will enable to thoroughly monitor their activity; in fact, practice shows that agents tend to conceal and provide false information to the authorities to protect their interests[11].

Centralization allows economies of scale – knowledge and resources are applied to the various cases and, as a general rule, the bigger the agency, the higher its deterrent effect is, as the detection (and sanctioning) of anticompetitive practices increases[12]. However, the high workload that a centralized competition authority has to face increases unnecessarily the time to solve the cases, and, consequently, it leads to the risk of leaving numerous practices unattended[13]. Moreover, the majority of the best competition agencies, and presumably the most efficient, exhibit a decentralized structure – for all, the system of the US (both Federal Trade Commission and Department of Justice) and that of the EU[14].

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9 FAURE, M. and ZHANG, X. *Competition policy and regulation: recent developments in China, the US and Europe*. Chentelham, Edward Elgar Publishing, 2011, p. 59-60.

10 In the context of competition, competition authorities are principals, while enterprises are agents, *vide* VAN DEN BERGH, R. «Economic criteria for applying the subsidiarity principle in the European Community: the case of competition policy», in *International Review of Law and Economics*., Vol. 16, 1996, pp. 363–383, mentioned in UNCTAD. *The attribution of competence to community and national competition authorities in the application of competition rules*, TD/B/COM.2/CLP/69, Geneva, 23 May 2008, p. 3.

11 *Vide* UNCTAD. *The attribution of competence… op. cit.*, p. 3, and JIMÉNEZ GONZÁLEZ, J.L. and CAMPOS MÉNDEZ, J. «Efectos de la descentralización… *op. cit.*, p. 6.

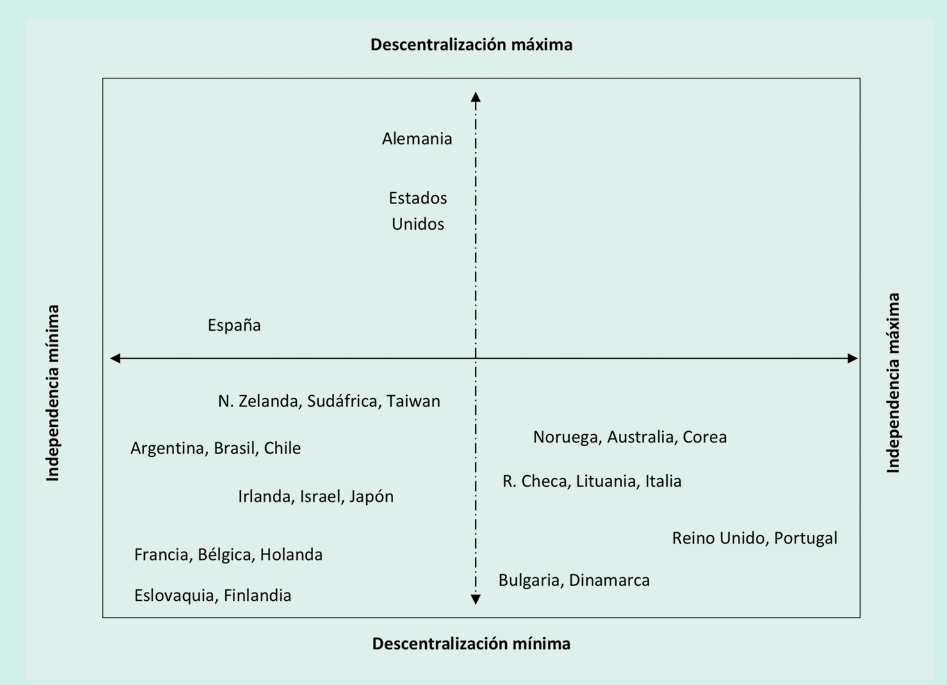
12 JIMÉNEZ GONZÁLEZ, J.L. and CAMPOS MÉNDEZ, J. «Efectos de la descentralización… *op. cit.*, p. 6; PASCUAL PONS, C. «La descentralización… *op. cit.,* p. 6.

13 In this sense, it must be borne in mind that an excessive concentration of the economic and political power can hamper the Social market economy, as it turns unmanageable; thus, the majority of the decisions related to politics and economics that are crucial for the society have to be taken and implemented in a decentralized way, as stated by RESICO, M.F. «Política de defensa de la competencia», in *Introducción a la Economía Social de Mercad*o, Konrad Adenauer Stiftung, 3 November 2011, p. 230.
For an indepth analysis on other disadvantages of a centralized system *vide* NEVEN, D.J. and RÖLLER, L.H. «The allocation of jurisdiction in international antitrust», in *Université de Lausanne*, Santiago de Compostela, 1999, pp. 4-5.

14 GCR. «Rating Enforcement: The annual ranking of the world's top antitrust authorities», in *Global Competition Review*, London, Law Business Research, 2014. For an analysis on the results of this rating *vide* KONKURRENCE- OG FORBRUGERSTYRELSEN. «Press note on the Global Competition Review 2014», in *Kfst* webpage, https://www.kfst.dk/Indhold-KFST/Nyheder/Pressemeddelelser/2014/~/media/21131F417EA74FADA694F8A2F3926A23.ashx (last consulted: 20.07.2018), p. 1: «The US Department of Justice's antitrust division keeps its five-star rating after a series of court victories and the steady operation of perhaps the world's most efficient and feared cartel enforcer. The European Commission stays at five stars, having led the way in punishing the Libor rate-fixing ring and secured its

Notwithstanding, the main drawback of a decentralized enforcement structure is the risk caused by the economic phenomenon of regulatory capture. In this regard, the decentralization will be optimal provided that the level of regulatory capture is less than the information advantage of the regional agency *vis-à-vis* the national agency[15].

Figure 1. **CENTRALIZATION AND INDEPENDENCE OF THE COMPETITION AGENCIES**



Source: CAMPOS, J. y JIMÉNEZ J. L. «La descentralización de la política de la competencia: algunas implicaciones sobre las estrategias empresariales», p. 395.[16]

The Spanish competition authorities' decentralized enforcement structure, for its part, exhibits still today some weaknesses that might challenge the appropriate enforcement of competition law. The procedure put in place by the central Parliament in order to solve the disagreements that may arise in relation to the competent

long-sought private damages package in the EU Parliament». In this line, the US system of territorial distribution of competences –decentralized structure– has proven to offer advantages for the effective deterrence of anticompetitive restrictions that represent a threat for the existing market model, as set forth by JELETCHEVA, M. «Las autoridades de defensa de la competencia en España», in *Teoría General de la Competencia*, Ed. Centro Europeo de Regulación Económica y Competencia, 2007, p. 351.

15 JIMÉNEZ GONZÁLEZ, J.L. and CAMPOS MÉNDEZ, J. «Efectos de la descentralización… *op. cit.*, p. 22.

16 CAMPOS, J. and JIMÉNEZ J.L. «La descentralización de la política de la competencia… *op. cit.*, p. 395.

authority, despite being regarded, at the time, as innovative (see *Figure 1*), it has proven not to be sufficient[17].

2.2. The implementation of a decentralized enforcement system: an analytical evaluation of the basics of the Spanish decentralized enforcement system

The implementation of a decentralized enforcement system implies the introduction of a system to allocate competition cases among the different authorities that may perceive themselves competent to hear over a specific case. There is an undeniable landmark in the allocation of competences between the State and the Autonomous Communities to hear about conducts that may infringe Spanish Competition Law: the ruling of 11 November 1999 of the Spanish Constitutional Court[18]. This ruling, of utmost importance for the recognition of competences to the regional competition authorities, declared unconstitutional a clause contained, expressly or by reference, in several articles of the Spanish Competition Act[19]. It made reference to practices that affect «the whole or part of the national market» and, as a general rule, it granted the application of the competition rules to the two existing administrative bodies of centralized nature: the Court of Defense of Competition and the Service of Defense of Competition[20].

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[17] «The own drafting of the Law [1/2002] may be regarded as the main source of competence conflicts between the State and the Autonomous Communities, or between the Autonomous Communities themselves», in ARZOZ SANTISTEBAN, X. «Alternativas a la solución judicial... *op. cit.*, p. 47; CAMPOS, J. y JIMÉNEZ J. L. «La descentralización de la política de la competencia: algunas implicaciones sobre las estrategias empresariales», In *Anuario Jurídico y Económico Escurialense*, XLI, 2008, [pp. 389-406] pp. 394-395; or, to put it in other words, «When the Law on the coordination of competences was written, the legislator focused on how to solve the conflicts rather than on how to avoid them», as expressed by CRUCELEGUI GÁRATE, J.L. «Los modelos de aplicación descentralizada… *op. cit.*, pp. 81-129; «the Law [1/2002] does not reflect the reality of the Autonomous Communities and it does not ensure the coordination and cooperation amotn the different organisms of defense of competition; […] it has born limp; […] the Central government has just make a legal transplant of the current European model», those are words of ZENARRUZABEITIA, a current member of the Counsil of the CNMC and, at the time, vicepresident of the Basque Country, in TRIBUNAL VASCO DE DEFENSA DE LA COMPETENCIA. «Apariciones en prensa escrita relativas al Curso de Verano 'La reforma de la defensa de la competencia: claves y retos de futuro'», in TVDC, http://www.euskadi.eus/r332288/es/contenidos/informacion/conferencias_y_retransmisiones/es_conretra/adjuntos/curso%20verano%20%20dossier%20prensa.pdf (last consulted: 20.07.2018), p. 4.

[18] It must be noted that all references to «State» contained in the present study will be done in relation to either the central government or the Parliament of the Spanish State, as opposed to the government and legislative chamber of each Autonomous Community. Spanish Constitutional Court Ruling 208/1999, of 11 November 1999, BOE no. 300, supplement of the Constitutional Court, of 16 December 1999, http://www.boe.es/buscar/doc.php?id=BOE-T-1999-23950 (last consulted: 20.07.2018).

[19] At the time, it was in force the 16/1989 Spanish Competition Act, BOE n. 170, of 10 July 1989 [hereinafter 16/1989 LDC], which has been repealed by the 15/2007 LDC.

[20] The referred clause was contained in the following articles: 4, 7, 9, 10, 11, 25.a) and c) of the 16/1989 LDC. *Vide* VELASCO RICO, C.I. *Delimitación de competencias… op. cit.,* p. 187. The institutional system has been modified first by the 15/2007 LDC, art. 12 and the 5.2 Additional Provision, which consolidated both bodies in the National Competition Commission (CNC); and, lately, by the Law 3/2013, of 4 June, on

The ruling generated the necessity to clearly define a framework to develop the executive competences of the State and of the Autonomous Communities contained in the Spanish Competition Act (hereinafter, LDC)[21]. While the State retains the whole legislative competence, it is for both, the State and the Autonomous Communities, to exercise the executive competences.

The Spanish Constitutional Court based its decision upon the acknowledgment that the Spanish Constitution does not expressly attribute to the State the competence over the subject «defense of competition», as such; therefore, as long as the set of competences attributed to the State do not impede it, the referred competence may be assumed by the Autonomous Communities in their respective Statutes of Autonomy[22]. In line with it, the Court determined that the subject of defense of competition could be included in that of the internal market[23].

In relation to the latter –the internal market–, the Statutes of Autonomy recognize an exclusive legislative competence to the State[24]. Therefore, if we read both texts in conjunction –the Statute of Autonomy that may result applicable and the

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the creation of the National Markets and Competition Commission, BOE no. 134, of 5 June 2013, which created the super-regulator. For a more detailed analysis on the evolution of the institutional system, *vide* MAGIDE HERRERO, M. «Del esquema institucional para la aplicación de esta ley», in MASSAGUER, J.; SALA ARQUER, J.M.; FOLGUERA, J. and GUTIÉRREZ, A. (Dirs). *Comentario a la Ley de Defensa de la Competencia*. Cizur Menor, Civitas – Thomson Reuters, 2012, 3rd ed., pp. 561-572.

21 In our study, when we make generical reference to the Spanish Competition Act, we will just say «LDC» (Ley de Defensa de la Competencia), no matter if it is the 16/1989 LDC or the 15/2007 LDC, provided that provisions contained in both legal texts match.

22 Spanish Constitutional Court Ruling 208/1999, of 11 November 1999, §§ 5-6, and *vide* JIMÉNEZ GONZÁLEZ, J.L. and CAMPOS MÉNDEZ, J. «Efectos de la descentralización… *op. cit.*, p. 3.

23 The Constitutional Court had already established that the defense of competition includes all regulations aimed at defending the freedom of competition through the prevention and, when needed, repression, of the situations that create potential obstacles to the development of the competition in the market. Therefore, the defense of competition is one of the competences that contributes to the regulation of the internal market, *vide* Spanish Constitutional Court Ruling 71/1982 of 30 November 1982, http://hj.tribunalconstitucional.es/HJ/es-ES/Resolucion/S how/SENTENCIA/1982/71 (last consulted: 05.04.2015), § 15; Spanish Constitutional Court Ruling 88/1986 of 1 July 1986, http://hj.tribunalconstitucional.es/HJ/es-ES/Resolucion/Show /SENTENCIA/1986/88 (last consulted: 05.04.2015), § 4; and Spanish Constitutional Court Ruling 264/1993 of 22 July 1993, http://hj.tribunalconstitucional.es/HJ/es-ES/Resolucion/Show /SENTENCIA/1993/264 (last consulted: 05.04.2015), § 4.

24 According to the 149.1.13 article of the Spanish Constitution, the State has the exclusive competence to set the bases and to coordinate the general planning of the economic activity. With respect to that constitutional principle, all Statutes of Autonomy –the specific articles are registered below–, when defining their exclusive competence over the internal market, they specifically exclude from it the competence to legislate on the defense of competition, to fix the general policy on prices and to guarantee the free circulation of goods within the State. The three of them are exclusive competences of the State. In fact, those Statutes of Autonomy recently reformed –in the reforming wave of 2007– make, on one hand, subtle references, if any, to the «internal market» and, on the other hand, a clearer distinction on what aspects of the competence on defense of competition are retained by the State and what are attributed to the Autonomous Community; in doing so, they include the competence on defense of competition among the exclusive executive competences of the Community, «without

Spanish Constitution–, the Autonomous Communities are constraint to assume just the executive competence over the internal market –and, thus, on the defense of competition– since they are bound to respect the set of competences expressly attributed to the State, namely, the legislative competence over the internal market –article 149.1.13 of the Spanish Constitution–.

In addition, not only are the Autonomous Communities limited to the executive competence over the defense of competition, but also, in order to be able to exercise it, they are obliged to have specified it in their respective Statutes of Autonomy; otherwise, in the absence of an express assumption by the Autonomous Community, the closing close established in article 149.3 of the Spanish Constitution would enter into play and the execution of the defense of competition would fall automatically under the competence of the State.

Finally, the Constitutional Court stated that the exercise of the executive competences over the defense of competition has to be harmonized with the need to protect the unity of the national economy and with the requirement of a single market that allows the State to develop its constitutional competence to set the grounds for and coordinate the general planning of the economic activity[25].

As a consequence, on one hand the State does not only retain for itself the legislative competence over the defense of competition, but it is also competent when it comes to the executive activities that may have an impact on the determination of the actual configuration of the national market. It does not matter that the effects of those executive activities are to be deployed over the territory of a single Autonomous Community[26]. Thus, the objective competence of the Autonomous Communities over the defense of competition is subject to two limitations: (a) the executive activities have to be carried out in the territory of the Autonomous Community of reference –principle of territoriality– and (b) they cannot have an incidence or impact on the supra-autonomic market[27]. But, in the light of the decisions taken by the

prejudice to the exclusive legislative competence of the State» (for a comprehensive list of the specific articles of the various Statutes of Autonomy, *vide* Annex I).

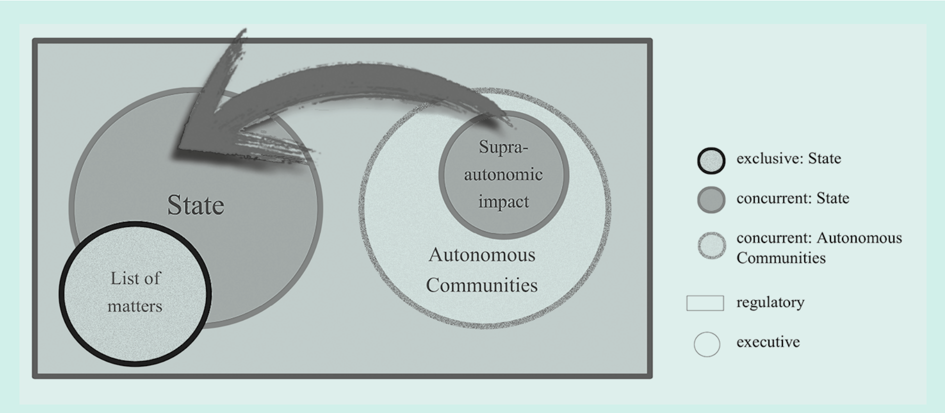
25 Spanish Constitutional Court Ruling 208/1999, of 11 November 1999, § 6.

26 Articles 1.1. and 1.2 and preface of the Law 1/2002.

27 *Supra*, preface and settled case law of the Spanish Constitutional Court: Spanish Constitutional Court Ruling 208/1999, §§ 6-7; Spanish Constitutional Court Ruling 124/2003, of 19 June, BOE no. 170, of 17 July 2003, http://hj.tribunalconstitucional.es/HJ/docs/BOE/BOE-T-2003-14319.pdf (last consulted: 20.07.2018), § 4; Spanish Constitutional Court Ruling 157/2004, of 23 September 2004, BOE no. 255, of 24 October 2004, http://hj.tribunalconstitucional.es/HJ/docs/BOE/BOE-T-2004-18113.pdf (last consulted: 20.07.2018), § 4; Spanish Constitutional Court Ruling 71/2012, of 16 April 2012, BOE no. 117, of 16 May 2012, supplement of the Constitutional Court, http://www.boe.es/boe/dias/2012/05/16/pdfs/BOE-A-2012-6481.pdf (last consulted: 20.07.2018), § 5. In relation to the executive competences that, having a supra-autonomic scope, are exercised by the State, it is argued, in order to justify such assumption by the State, that either those competences are not executive, but quasi

Junta consultiva en materia de conflictos, this conception of the exhaustion of the effects in the territory of a single Autonomous Community must be tempered[28].

Figure 2. **DISTRIBUTION OF COMPETENCES OVER COMPETITION ENFORCEMENT WITHIN THE SPANISH TERRITORY**



Source: Made by the authors on the basis of the distribution above mentioned.

On the other hand, the Law 1/2002, in its article 1.5, expressly includes some matters among those of exclusive competence of the State –listing principle–: (a) the application of the rules concerning restrictive or abusive agreements and practices, and rules concerning mergers and acquisitions; (b) the representation in matters related to the defense of competition in front of other national authorities, international forums and bodies and, in particular, in front of the European Union, the OECD, the WTO and the UNCTAD; and the application in Spain of articles 101 and 102 TFEU, and its secondary legislation[29].

regulatory, or they are executive actions that have a basic nature, *vide* VELASCO RICO, C.I. *Delimitación de competencias… op. cit.*, pp. 67-68.

[28] As we will explain in the following section, in the sphere of commercial trade, there is not possible to find out practices that exhaust their effects completely in a given territory, as put forward by the Competition Tribunal of the Autonomous Community of Madrid in the Report of the *Junta consultiva en materia de conflictos* of 21 December 2005, case *Spanair/AENA*, p. 7. Despite the fact that the *Junta consultiva en materia de conflictos* leant towards the allocation of the competence to the State, one cannot obviate the strength of the legal reasoning put forward by the Competition Tribunal of the Autonomous Community of Madrid and, furthermore, the *Junta consultiva en materia de conflictos* itself acknowledged in the Report (p. 10) that it had not the means, neither the time, to develop the economic research that taking a decision like the one at stake implies – whether to allocate the competence to the State or to the Autonomous Community; thus, such an acknowledgement lead us to consider the debatable nature of the decisions adopted by the *Junta consultiva en materia de conflictos*.

[29] The approval of the 15/2007 LDC led to the suppression of the individual authorizations, whose concession was competence of the State, *vide* 15/2007 LDC, preamble, recital II. In relation to the application of articles 101 and 102 TFEU by the CNMC, it is applicable the article 53.1.a) and the 5.1

Therefore, the procedure to determine the competent authority would consist on two steps: firstly, (a) the *main connection point* will be examined –listing principle and territoriality principle are to be applied– and, if the competence is on the State –due to the fact that the matter is among the listed ones or that the practice deploys its effects over the territory of more than one Autonomous Communities– no further analysis is, in principle, required; however, if, as a consequence of the application of the first step, the competence is on an authority of an Autonomous Community, (b) the *specific additional connection points* need to be examined, in order to verify whether the practice could have affected the unity of the national market and, consequently, would fall under the competence of the State[30].

3. THE DISPUTE RESOLUTION MECHANISM WITHIN THE SPANISH COMPETITION ENFORCEMENT SYSTEM: A CRITICAL INSIGHT

The technique used by the legislator to define the scheme of distribution of competences prompts the so-deemed competent authorities to first resort to the interpretation of the sometimes obscure rules contained in the Law 1/2002 in order to, then, discern which body is competent to hear over the case – difficulties arise particularly in relation to those rules introduced to safeguard the unity of the market, that is, those containing additional connection points[31]. In the light of such a wide margin of interpretation of the Law 1/2002, its Articles 2 and 3 envisage a dynamic and balanced mechanism to solve the conflicts that may arise in the course of its application[32].

Additional Provision of the 15/2007 LDC and the Royal Decree 2295/2004, of 10 December, on the application in Spain of the EU competition rules, BOE no. 308, 23 December 2004, http://www.boe.es/buscar/doc.php?id=BOE-A-2004-21496 (last consulted: 20.07.2018), in relation to art. 35 of the Regulation 1/2003. For an insight on the EU competition rules and on the allocation of cases between the National Competition Authorities and the European Commission, *vide* CALVO CARAVACA, A.L. *Derecho antitrust europeo. Tomo I. Parte General. La competencia*. Madrid, Colex, 2009; KORAH, V. *An introductory guide to EC competition law and practice*. Oxford, Hart Publishing, 2007, 9th ed.; MIKROULEA, A. «Case Allocation in Antitrust and Collaboration between the National Competition Authorities and the European Commission», in LIANOS, I. and KOKKORIS, I. (eds). *The reform of EC competition law: New challenges*. The Hague, Kluwer Law International, 2010.

[30] Report of the *Junta consultiva en materia de conflictos* of 20 November 2013, case *Desmotadoras de Algodón*, p. 20; and Report of the *Junta consultiva en materia de conflictos* of 6 May 2008, case *Euskaltel/Telefónica*, p. 12.

[31] For a critical view on the unclearness of the Law 1/2002, specifically with reference to the contested connection points, *vide*. ARZOZ SANTISTEBAN, X. «Alternativas a la solución judicial... *op. cit.*, p. 89.

[32] The inspiration of the legislator to establish such a mechanism is not to be found in the Spanish Constitutional Court Ruling 209/1999, as it never made reference to the need or the appropriateness of setting a formal dispute resolution system, neither the Law 52/1999 did, *vide* Law 52/1999, of 28 December, on the reform of the Law 16/1989, of 17 July, on the Defense of Competition, BOE n. 311, of 29 December 1999, particularly, its Final Second Provision, where it reminds the Government of its

The system is primarily based on the coordination among the administrative bodies, who heavily rely on a reciprocal and symmetrical information-providing system about the complaints received or the proceedings commenced *ex officio*; if differences arise over who should be the competent authority to instruct and decide on a case, after a prudential period of time –that allows authorities to reflect on the issue–, the controversy would be submitted to the *Junta consultiva en materia de conflictos* [33]. Such body, as its name clearly points out, it is of advisory character and its resolutions are non-binding[34].

However, no matter how specific and all-encompassing the procedure contained in the Law may (intend to) be, it results actually impossible to clearly define the coordination criteria which, in practice, will indeed be developed on a case-by-case basis[35].

All in all, the controversies that may arise will be purely applicative: in the event of a positive conflict of competences, the parties –competition authorities– will tend to discuss the circumstance or factual issue that determines the competence, rather than the 'ownership' of the competence itself –competency–; that is, both competition authorities –or all, if eventually there are several authorities that claimed themselves to be competent– may agree on the market definition and on the fact that the effects of the conduct are deployed over the territory of a single Autonomous Community, but they might disagree –and here is where the conflict arises– on the interpretation of the consequences in relation with the competency of such market and effects definition[36].

Up to date, all the cases that have gone through the dispute resolution mechanism to the point of submitting the controversy to the *Junta consultiva en materia de conflictos* were the result of a failure to reach a compromise over the exhaustion of

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obligation to comply with the Spanish Constitutional Court Ruling 208/1999; and NADAL, M. and ROCA, J. (Coords) *La descentralización de la política de competencia en España… op. cit.*, p. 63.

33 Article 2 of the Law 1/2002.

34 The *Junta consultiva en materia de conflictos* is formed by a President (appointed by the Minister of Economy, heard the Competition Defense Council) and by a several board members appointed both by the Ministry of Economy and by the Autonomous Communities concerned. In search for parity among the members appointed by the State and those appointed by the Autonomous Communities, as it is for the State to appoint the President, the State will appoint one board member less than the number of board members appointed by the Autonomous Communities. In any case, for an in depth analysis on the composition and functioning of the *Junta consultiva en materia de conflictos*, *vide* TRIBUNAL VASCO DE DEFENSA DE LA COMPETENCIA. Estudio sobre el reparto de competencias en materia de defensa de la competencia: análisis comparativo del régimen jurídico europeo, alemán y español, octubre 2010, pp. 45-50.

35 NADAL, M. and ROCA, J. (Coords) *La descentralización de la política de competencia en España… op. cit.*, p. 47.

36 ARZOZ SANTISTEBAN, X. «Alternativas a la solución judicial... *op. cit.,* pp. 46-49.

the effects of the conduct in the territory of the respective Autonomous Community –territoriality principle–[37]. There have been five cases so far[38].

After a close examination of the referred cases –which may not result a burdensome task, due to the reduced number of them–, some conclusions may be drawn in relation to the practical application of the procedure set out in the Law 1/2002. In fact, although one cannot obviate the non-binding character of the reports of the *Junta consultiva en materia de conflictos*, they turn out to be a precious 'food for thought' in relation to the allocation of competences – they systematize all the plausible arguments that a competition authority may, and actually do, wield to retain its competence over a case, while calling into question the pure validity of the conclusions reached in its reports[39].

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[37] GUZMÁN ZAPATER, C. «Aplicación de la Ley 1/2002, de 21 de febrero, de Coordinación de las competencias del Estado y las Comunidades autónomas en materia de defensa de la competencia, durante el periodo 2008-2010», in CASES, L. (Dir.) *Anuario de la Competencia*. Bellaterra, Universitat Autónoma de Barcelona, 2010, [pp. 45-66] p. 48. In the Report on the case *Spanair/AENA*, although the State tried to solve the conflict by means of applying the article 82 TEC [nowadays, 102 TFEU], and, thus, allocating to itself the competence to hear over the case, the *Junta consultiva en materia de conflictos* wisely pointed out that a potential resort to EU Competition Law instruments cannot be used as a tool by the State authority to automatically attract the competence over a case, let alone if such article is ultimately not applicable. Furthermore, it emphasizes that the factual situation established in the TFEU articles cannot be deemed to be connection points that solve conflicts regarding the allocation of competences, not even conflicts over the applicable law, since both legal orders are not alternative to each other and they can both be well applied together, *vide cit.*, p. 8, as set forth in the article 3(1) of the Regulation no. 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty, *Official Journal of the European Communities*, L 1/1, of 4 January 2003 [consolidated version: 28.9.2006]: «Where the competition authorities of the Member States or national courts apply national competition law to agreements, decisions by associations of undertakings or concerted practices within the meaning of Article 81(1) [nowadays, 101(1)] of the Treaty which may affect trade between Member States within the meaning of that provision, they shall also apply Article 81 [nowadays, 101] of the Treaty to such agreements, decisions or concerted practices. Where the competition authorities of the Member States or national courts apply national competition law to any abuse prohibited by Article 82 of the Treaty, they shall also apply Article 82 [nowadays, 102] of the Treaty». On the joint application of national and EU competition law, *vide* CALVO CARAVACA, A.L. *Derecho antitrust europeo*, *op. cit.*, pp. 382-385.

[38] It should be noted, even if anecdotally, that out of the five reports, just in one the competency has been granted to a regional competition authority – namely, it was granted to the Basque Competition Authority [at the time, Basque Office for the Defense of Competition, integrated in the Basque Competition Authority by virtue of the Basque Law 1/2012, of 2nd February, on the Basque Competition Authority, BOPV no. 29, of 9 February 2012, Additional Provision 1(2)] in the Report of the *Junta consultiva en materia de conflictos* of 6 May 2008, case *Euskaltel/Telefónica*. However, given the scarce sample available, it does not appear to be worth to draw any conclusions from analyzing the side with which the *Junta consultiva en materia de conflictos* has aligned most. To gain access to the Reports issued so far, the CNMC has uploaded them to its website: COMISIÓN NACIONAL DE LOS MERCADOS Y LA COMPETENCIA. «Coordinación con CCAA», in CNMC webpage, https://www.cnmc.es/ambitos-de-actuacion/competencia/coordinacion-con-ccaa (last consulted: 26.11.2018).

[39] *Vide* the critics, previously referred to, included in the Report of the *Junta consultiva en materia de conflictos* in the case *Spanair/AENA* to the lack of means and time to conclude an adequate research on the situation, p. 10.

In relation to the Spanish decentralized competition law enforcement system, the *Junta consultiva en materia de conflictos* has appropriately pointed out that it is not characterized by the predominance of one of the bodies over the other: the system to allocate competition cases between the European Commission and the national competition authorities is based on the predominance of the former, whereas the Spanish enforcement system is grounded on the distribution of competences between two enforcement bodies that stand on equal foot; accordingly, in general terms, a competition authority will be declared competent if the executive actions to enforce competition rules have to be carried out within its territory[40].

However, one may just scan the Reports to realize that the reality is well far from the theory: the design of the system enshrined in the Law 1/2002 does not endorse the 'equal footing' principle that, in theory, should inspire the process to allocate competencies among the competition enforcement bodies. The Reports have brought to light the fact that, even if, apparently, both the national competition enforcer and the regional enforcers are placed at the same level, since, unlike in the EU system, the potential disputes will be submitted to and solved by a neutral administrative body –namely, the *Junta consultiva en materia de conflictos* –, the Law 1/2002 does not intend to provide a parity treatment to the State and the Autonomous Communities; instead, the Law places the State in a position of quasi-supremacy.

To illustrate this statement, the *Junta consultiva en materia de conflictos* relates the following examples: (1) the State is granted with some exclusive competences –listing principle– that would be otherwise of the Autonomous Communities (article 1(5)); (2) the obligation to notify the complaints is wider for the Autonomous Communities –copy of the complaint– than for the State –prompt note– (article 5(2)); (3) article 1[2]a, when it defines when a practice is able to affect the supra-autonomous market or the (unity of the) national market, it merely confines itself to gather the criteria compiled in the LDC (article 64 LDC) to assess whether an infringement is serious: the dimension of the affected market, the market-share of the company, the nature and extent of the restriction or its effects on potential or effective competitors and consumers and users, so, as long as an infringement is preliminary assessed to be serious, it is subject to fall under the scope of the State; and (4) if the State 'allows' the Autonomous Community to retain the executive competence over a case, it may appear as an interested party in the autonomous proceedings to

40 This implies that, since the moment when a potentially restrictive practice is detected, none of the enforcement bodies is granted with privileges that may help it get the competence over a case allocated to the detriment of the unprivileged enforcement body, which may well also deserve to be allocated the competence over the case; both competition enforcement authorities are treated equally, they are on a level playing field, *vide* Report of the *Junta consultiva en materia de conflictos* in the case *Estación autobuses Madrid*, p. 10.

exercise a monitoring and tutelage power over the regional competition authority, as well as it may even appeal the decisions taken in such proceedings[41].

As a consequence, one can easily perceive the higher position of the national competition authority *vis-à-vis* the regional competition enforcers. This hardens ultimately the consecution of the desired equilibrium between the unity of the national market and the respect of the executive competences over the enforcement of competition law attained by (some of) the Autonomous Communities in their respective Statutes of Autonomy. Furthermore, the preservation of such a different level playing field restraints the attainment of the decentralized competition enforcement system as it was conceived and consecrated in the constitutional block.

Furthermore, the Reports have revealed the existing discrepancies in relation to the identification of the keystone to allocate the executive competencies over the enforcement of competition law – for the regional competition authorities the focus should be placed on the *relevant geographical market*; whereas for the national competition authority, the attention should be drawn to the likeliness for the practice to alter the free competition in a geographical scope wider than an Autonomous Community, that is, it should be drawn to the *territorial scope of the restrictive effect*[42].

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41 Report of the *Junta consultiva en materia de conflictos,* in the case *Spanair/AENA*, pp. 9-10.

42 Report of the *Junta consultiva en materia de conflictos* in the case *Spanair/AENA*, pp. 4-6: the Competition Tribunal of the Autonomous Community of Madrid put forward that the relevant geographical market was the Barajas airport, in relation to the management services to airport customers; the Spanish Competition Tribunal [nowadays, CNMC], instead, pointed out that the territorial effects had an scope wider than the Barajas airport, since the practice affected the market on air transport to and from Barajas.
Report of the *Junta consultiva en materia de conflictos* of 6 May 2008, case *Euskaltel/Telefónica*, pp. 6-10: the Basque Office for the Defense of Competition stated that the complaint filed by Euskaltel referred to the exclusionary abuse of the dominant position of Telefonica; therefore, the market is the Basque Country; the national competition authority, on its side, claimed that, even if the practice has been directed against Euskaltel, there are two abuses of dominant position – i.e., one exclusionary (against Euskaltel) and the other exploitative (against consumers, who are charged a higher price if they call to mobile phones from Euskaltel); thus, the effects are suffered all around Spain.
Report of the *Junta consultiva en materia de conflictos* in the case *Estación autobuses Madrid*, pp. 4-6: the Competition Tribunal of the Autonomous Community of Madrid considered that the relevant geographical market was local, while the Spanish Competition Tribunal claimed the effects to be, at least, supra-local, since the sale of transport tickets is an instrumental and imperative activity for the provision of transport services by road. Report of the *Junta consultiva en materia de conflictos* in the case *Desmotadoras de algodón*, pp. 8-17: this Report's legal arguments could be criticized, but the tedious task of discerning what the arguments of the *Junta consultiva en materia de conflictos* were has prevented us from embarking in such an enterprise. It constitutes the perfect example of a systematic compilation of both parties' arguments without further entering into any kind of legal analysis that allows us to follow the logical thread that leads the decision body –in this case, the *Junta consultiva en materia de conflictos* – to adopt this conclusion and not the opposite. According to the *Junta consultiva en materia de conflictos,* who endorses the arguments of the national authority, the apparent crystal clearness of the supra-autonomous effects of the practice, due to the fact that cotton ginning and manufacturing of cotton fiber, albeit the fact that cotton is almost only manufactured in Andalusia, are, respectively, an intermediate product and a raw

It is clear that the competence allocation system, as designed by the Law 1/2002, aims at focusing on the territorial scope of the restrictive effect, since the identification of the relevant geographical market requires a careful analysis and appreciation of the facts claimed and proven, and of the legal and economical context in which the conduct has been carried out; indeed, the definition of the relevant geographical market has not been granted the function of demarcating the executive competences of the different competition enforcers[43]. Therefore, one may pay attention to the extra-territorial (in the sense of 'supra-autonomous') effects of the potential anticompetitive practice[44].

4. CONCLUSIONS

The Spanish decentralized competition enforcement system is based on the transference of certain competences –i.e., executive– to the competition enforcement bodies of the Autonomous Communities – wherever they exist. The system designed to deal with the –sometimes– contentious allocation of competences may be far from been ideal if we are to avoid the emergence of attribution-conflicts, but, applied in the way that it is currently being, it also risks harming the basics of the constitutional distribution of competences between the State and the Autonomous Communities.

Acknowledging a narrow interpretation of the exhaustion of the effects theory implies the automatic denial of the competences of the regional competition authorities over a case that, in the light of the constitutionally recognized decentralized enforcement model, would have been assigned to the regional enforcer. Moreover, such an interpretation empties the substance of the principles that, put forward by the Spanish Constitutional Court in its Ruling 208/1999, inspired the adoption of the Law 1/2002.

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material, implies that the practices affect the market where final products are commercialized –the national market– and, therefore, the competence should be undoubtedly allocated to the State.

Report of the *Junta consultiva en materia de conflictos* of 18 April 2017, case *Abogados*, pp. 7-24: with regard to the collective recommendation on prices of several professional bodies, the CNMC considered that the practice could affect the unity of the national market, whereas the regional competition authorities of Andalusia and Catalonia claimed that the practice did only impact the free competition within the respective Autonomous Community where the professional body was located.

43 Report of the *Junta consultiva en materia de conflictos* in the case *Estación autobuses Madrid*, p. 11, confirmed by the Spanish Constitutional Court Ruling 71/2012, § 6, which considered that the denial of the ticket office could have an effect on the supra-autonomous market of passenger transport.

44 Report of the *Junta consultiva en materia de conflictos* in the case *Spanair/AENA*, p. 9; Report of the *Junta consultiva en materia de conflictos* of 6 May 2008, case *Euskaltel/Telefónica*, § 3.5, where the *Junta consultiva en materia de conflictos* underlined the necessity to define not only the geographical reach of the effects, but also their temporal scope; Report of the *Junta consultiva en materia de conflictos* in the case *Estación autobuses Madrid*, § 3.2; and Report of the *Junta consultiva en materia de conflictos* in the case *Desmotadoras de algodón*, p. 23; Report of the *Junta consultiva en materia de conflictos* in the case *Abogados,* § 10.

There is an undeniably different level playing field for the national competition authority and the regional competition authorities in relation with the system to solve disputes regarding the attribution of competences; consequently, this hardens the necessary equilibrium between the unity of the national market and the respect to the executive competences assumed by the Autonomous Communities in their Statutes of Autonomy, and, ultimately, it damages the decentralized enforcement system recognized in the block of constitutionality. While the 1/2002 Law made an express stress on the former –by including the unity of the national market among the additional connection points–, the latter, which is the base of the decentralized enforcement system, cannot be obviated and public authorities must work actively for its preservation.

The only solution is to interpret the extraterritoriality principle in an integrative manner, so that it becomes consistent with the Spanish decentralized enforcement system, while preserving the unity of the national market. Thus, an integrative interpretation of article 1(2)(a) of the Law 1/2002 with the decentralized allocation of competences in the realm of the Spanish enforcement system, as recognized in the Constitution, the Statutes of Autonomy –and related amending and development laws–, as well as the interpretative case law from the Constitutional Court, requires to reach the following conclusion: the mere outpouring of the effects should not entitle an automatic allocation of the enforcement competences to the national competition enforcer; instead, the outpouring should be appropriate or, at least, relevant as to alter –rather than just affect– the free competition on the supra-autonomous market. Otherwise, the slightest outpouring of the effects would suppose an uncontestable loss of competences of the regional competition enforcers, to the point of even questioning their *raison d'être*[45].

[45] On this criteria of the 'slight outpouring' that is currently being used in other branches of the Spanish legal order, *vide* RODRÍGUEZ MIGUEZ, J. A. «La reforma del sistema español de defensa de la competencia. La descentralización administrativa de la aplicación del Derecho de la competencia en España», in *Serie Política de la Competencia*, Working Paper no. 22, Universidad San Pablo CEU, 2006, available at http://www.idee.ceu.es/Portals/0/Publicaciones/La-descentralizacion-aplicacion-del-Derecho-Competencia.pdf (last consulted: 20.07.2018), p. 14.

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ANNEX

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Statute of Autonomy of Catalonia, initially approved by the Organic Law 4/1979, of 18 December, on the Statute of Autonomy of Catalonia, BOE no. 306, of 22 December 1979, http://www.boe.es/buscar/doc.php?id=BOE-A-1979-30178 (last consulted: 25.11.2018), art. 12.1.5, which has been repealed by the Organic Law 6/2006, of 19 July, on the reform of the Statute of Autonomy of Catalonia, BOE no. 172, of 20 July 2006, http://www.boe.es/buscar/act.php?id=BOE-A-2006-13087 (last consulted: 25.11.2018). In this last version, the competence over the internal market is not included as such; instead, it specifically includes the executive competence on the defense of competition in its article 154.

Statute of Autonomy of Galicia, art. 30.1.4, Organic Law 1/1981, of 6 April, on the Statute of Autonomy for Galicia, BOE no. 101, of 28 April 1981, http://www.boe.es/buscar/act.php?id=BOE-A-1981-9564 (last consulted: 25.11.2018).

Statute of Autonomy of Andalusia, initially approved by the Organic Law 6/1981, of 30 December, on the Statute of Autonomy for Andalusia, BOE no. 9, of 11 January 1982, http://www.boe.es/buscar/doc.php?id=BOE-A-1982-633 (last consulted: 25.11.2018), where the competence on the internal market was set out in article 18.1.6; and repealed by the Organic Law 2/2007, of 19 March, on the reform of the Statute of Autonomy for Andalusia, BOE no. 68, of 20 March 2007, http://www.boe.es/buscar/act.php?id=BOE-A-2007-5825 (last consulted: 25.11.2018), where the competence on the internal market is set out in article 58.1.1. and the executive competence on the defense of competition is set out in article 58.4.5.

Statute of Autonomy of Asturias, art. 10.1.14, Organic Law 7/1981, of 30 December, on the Statute of Autonomy for Asturias, BOE no. 9, of 11 January 1982, http://www.boe.es/buscar/act.php?id=BOE-A-1982-634 (last consulted: 25.11.2018).

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Statute of Autonomy of the Valencian Community, art. 49.1.35, Organic Law 5/1982, of 1 July, on the Statute of Autonomy of the Valencian Community, BOE no. 164, of 10 July 1982, http://www.boe.es/buscar/act.php?id=BOE-A-1982-17235 (last consulted: 25.11.2018).

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Impuestos energético-ambientales, cambio climático y federalismo fiscal en España

Energy-environmental taxes, climate change and fiscal federalism in Spain

Este artículo analiza las posibilidades de reforma de los impuestos energético-ambientales en España como parte de una estrategia más amplia de mitigación del cambio climático. Tras estudiar el contexto teórico de estos impuestos en un marco federal y algunas experiencias internacionales destacadas, el trabajo evalúa la viabilidad de estos impuestos en los ámbitos subestatales de gobierno. En España, la situación actual de estas figuras se caracteriza por el desinterés del gobierno central y la descoordinación de las iniciativas autonómicas. Este escenario requiere una reforma basada en la coordinación, que realice una asignación jurisdiccional adecuada y dote al sistema de flexibilidad para facilitar las iniciativas de las comunidades autónomas en este terreno.

Artikulu honek, Espainian ingurumenarekin eta energiarekin zerikusia duten zergen erreforma klima-aldaketaren arintze estrategia zabalago baten zati gisa aztertzen ditu. Zerga horien testuinguru teorikoa esparru federal batean eta nazioarteko esperientzia azpimarragarri batzuk aztertu ondoren, lanak gobernuaren estatu-maila baino beheragoko alorretan zerga horien bideragarritasuna ebaluatzen du. Espainian, figura horien egungo egoeraren ezaugarri nagusienak gobernu zentralaren interesik eza eta ekimen autonomikoen deskoordinazioa dira. Agertoki horrek koordinazioan oinarritutako erreforma eskatzen du; esleitze jurisdikzional egokia egingo duena eta alor honetan autonomia erkidegoen ekimenak laguntzeko malgutasuna emango diona sistemari

This article analyzes the possibilities of reforming energy-environmental taxation in Spain as part of a wider strategy of climate change mitigation. After studying the theoretical context of these taxes in a federal framework and some relevant international experiences, the paper evaluates the utility and feasibility of these taxes in subnational jurisdictions. In Spain, the current situation of these taxes is characterized by the disinterest of the central government and the lack of coordination of regional initiatives. This scenario requires a reform based on coordination, with an adequate jurisdictional allocation of these taxes, with flexible solutions that could facilitate the development of effective regional initiatives in this field.

Alberto Gago*
Rede, Universidade de Vigo, Facultade de CC.EE.

Xavier Labandeira
Rede, Universidade de Vigo, Facultade de CC.EE.

José M. Labeaga
Departamento de Teoría Económica y Economía Matemática, UNED de Madrid

Xiral López-Otero
Departamento de Teoría Económica y Economía Matemática, UNED de Madrid

Índice

Palabras clave: impuestos, energía, medio ambiente, federalismo fiscal, España.
Keywords: taxes, energy, environment, fiscal federalism, Spain.

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1. INTRODUCCIÓN

A pesar del amplio consenso que los impuestos ambientales suscitan entre los economistas, del apoyo que reciben de las principales instituciones internacionales y del éxito de algunas experiencias aplicadas que los han utilizado, existen distintas barreras que hasta el momento han dificultado una introducción más amplia e intensa[1]. La situación es paradójica, porque mientras tanto se han incrementado de manera notable

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[1] Entre las restricciones que afectan a la fiscalidad energético-ambiental destacan los posibles problemas distributivos y de competitividad, la existencia de minorías de bloqueo, las necesidades recaudatorias de los gobiernos o cuestiones asociadas con la visibilidad (*salience*) (véase Enconomics for Energy, 2014).

los compromisos de reducción de emisiones de Gases de Efecto Invernadero (GEI en adelante) para alcanzar los objetivos de mitigación del Acuerdo de París.

El ejemplo de los impuestos sobre la energía es ilustrativo. Las múltiples externalidades asociadas a la producción y el consumo de energía (veáse Ecofys, 2014; Rabl y Spadaro, 2016; Korzhenevych *et al.*, 2014, van Essen, 2018), son especialmente importantes en relación con el cambio climático (véase IPCC, 2014)[2]. Esta evidencia hace muy recomendable un incremento en el uso de la fiscalidad energético-ambiental, ya que además de su impacto en la reducción de las emisiones de dióxido de carbono (CO_2), estimulan la innovación e incentivan a las empresas a desarrollar procesos y productos alternativos más eficientes energéticamente (Comisión Europea, 2015).

Sin embargo, en la actualidad prácticamente todos los impuestos sobre la energía a nivel mundial están por debajo de su nivel óptimo desde una perspectiva ambiental, sin que se hayan producido apenas cambios sustanciales en estas figuras en los últimos años (OCDE, 2018b). En este sentido, los gobiernos subestatales, que en muchas ocasiones han compensado la falta de iniciativa del gobierno central con políticas ambientales cuyo alcance supera incluso su jurisdicción (véase IPCC, 2014), podrían jugar un papel relevante si se establecen mecanismos de coordinación y armonización de las políticas subestatales que garanticen su efectividad ambiental y la ausencia de efectos negativos sobre la competitividad.

En el caso español, la fiscalidad energético-ambiental ha jugado un papel marginal, generalmente asociada a motivos recaudatorios. El gobierno central no ha mostrado interés en estos impuestos, no ha incorporado de forma relevante el daño ambiental como hecho imponible, ni ha promovido ningún proceso armonizador y, como consecuencia, las Comunidades Autónomas (CC.AA.) han canalizado su potestad tributaria hacia este campo por insuficiencia regulatoria o competencial, en un ejercicio de autonomía y suficiencia financiera cuyo resultado se caracteriza por la descoordinación existente entre las distintas figuras, su reducida efectividad ambiental y su capacidad recaudatoria limitada.

En este contexto fiscal, es necesaria una reforma que potencie, armonice e incremente la efectividad de estos impuestos. La alternativa que sugiere este artículo es una reforma que reduzca el número e incremente la intensidad de los impuestos ambientales en España e introduzca un marco federal en su definición, de modo que se logren abordar adecuadamente los problemas ambientales y, al mismo tiempo, se aproveche e impulse la iniciativa de las CC.AA. de forma coordinada.

El artículo se estructura en cinco apartados. Tras esta introducción, el segundo apartado analiza la asignación jurisdiccional óptima y subóptima de los impuestos

2 En 2016, las emisiones asociadas a la energía representaron el 79% de las emisiones de GEI en la UE y el 72% en España (Eurostat, 2018).

energético-ambientales. En el tercero se muestra la experiencia española con estas figuras. En el cuarto epígrafe se describen las experiencias internacionales más destacadas sobre coordinación en el establecimiento de impuestos energético-ambientales, de las que se extraen algunas lecciones para España en el quinto apartado.

2. IMPUESTOS ENERGÉTICO-AMBIENTALES Y ASIGNACIÓN JURISDICCIONAL

En un contexto teórico óptimo, los impuestos energético-ambientales deberían asignarse preferentemente a las unidades jurisdiccionales que agoten los beneficios y costes asociados al bien ambiental (Olson, 1969). Por consiguiente, dado que el cambio climático es un problema ambiental global, los impuestos energético-ambientales deberían ser aplicados por una entidad supranacional a nivel mundial, evitando así que haya jurisdicciones que se beneficien de la política sin soportar sus costes económicos y de competitividad (Kousky y Schneider, 2003). En este marco, los gobiernos subestatales tienen un papel a desarrollar si los problemas ambientales muestran un alcance que coincide aproximadamente con el tamaño de la jurisdicción subestatal. Además, la introducción de impuestos energético-ambientales subestatales puede generar una competencia entre regiones para incrementar la calidad ambiental y atraer ciudadanos, aumentando de esta forma los beneficios de la política fiscal[3].

No obstante, existen razones que justifican la utilización de políticas subóptimas en las que las entidades subestatales definen y aplican impuestos energético-ambientales sobre problemas ambientales de mayor alcance territorial (véase IPCC, 2014). Así, cuando no exista una autoridad supraestatal que tenga capacidad para imponer impuestos energético-ambientales globales, o cuando los gobiernos nacionales sean renuentes a implementar estas políticas, los gobiernos subestatales pueden compensar esta falta de acción de los niveles más elevados de gobierno (Schreurs, 2008). Además, la descentralización permite experimentar con distintos mecanismos para abordar el problema ambiental y comprobar su efectividad (Oates, 1999, 2001). De este modo, los gobiernos subestatales actúan como un laboratorio y cuando los experimentos son exitosos proporcionan una evidencia sólida para su difusión a una escala mayor (Corfee-Morlot, 2009). En este contexto, los gobiernos subestatales pioneros pueden beneficiarse además de las ventajas en el mercado asociadas a su liderazgo (Jänicke y Jacob, 2004).

Por otra parte, aunque el cambio climático es un problema global, una variación significativa de impactos entre jurisdicciones puede hacer que determinados gobiernos subestatales deseen ser más activos en este ámbito que niveles jurisdiccionales superiores (Andreen, 2008). Además, los gobiernos subestatales están más cerca de los ciudadanos y por ello pueden identificar mejor sus necesidades,

[3] La competencia fiscal podría ser destructiva si las regiones intentan atraer actividades económicas reduciendo el nivel de los impuestos energético-ambientales (véase Oates y Schwab, 1988).

prioridades y dificultades y, al ser de menor tamaño, sus decisiones pueden ser más flexibles y más rápidas en este campo (Puppim de Oliveira, 2009; Galarraga *et al.*, 2011). Asimismo, la aplicación de impuestos energético-ambientales a nivel subestatal podría generar una serie de co-beneficios que justificarían su aplicación, como la reducción de otras externalidades de carácter más local (congestión, contaminación local, etc.) (Barker *et al.*, 2001).

En este contexto, si se pretende incrementar la efectividad de las políticas ambientales globales, es fundamental establecer vínculos entre los instrumentos (tanto impuestos energético-ambientales como otro tipo de medidas) aplicados por los distintos niveles jurisdiccionales[4] (Bodansky *et al.*, 2016). Esta vinculación incrementa el coste-efectividad, minimiza los costes tanto a nivel global como para las jurisdicciones individuales; contribuye a la armonización entre sistemas, reduciendo los incentivos a la competencia fiscal destructiva; reduce la volatilidad de los precios y el poder de mercado (Bodansky *et al.*, 2015; Metcalf y Weisbach, 2012); disminuye los costes administrativos gracias a las economías de escala; y proporciona estabilidad regulatoria, al requerir la coordinación de los distintos participantes para introducir cambios[5].

3. **LA EXPERIENCIA ESPAÑOLA**

La experiencia española con fiscalidad energético-ambiental se caracteriza por ser limitada a nivel central y con una fuerte participación de las administraciones subestatales. El peso de estos impuestos en términos de PIB (1,5%) y recaudación total (4,6%), se sitúa por debajo de la media de la UE-28 (1,9% y 4,8%, respectivamente) (Comisión Europea, 2018). Esto se traduce en una posición muy retrasada en el ranking de países miembros de la UE, como puede verse en el cuadro nº 1.

Se trata de una posición retrasada que ilustra esa actitud renuente del gobierno central ya apuntada y que no se corresponde con la situación socio-económica de España en la UE. Y ello a pesar de la abundante evidencia académica existente favorable a este tipo de tributos (véanse Gago *et al.*, 2014; 2016, CETE, 2018; Robinson *et al.*, 2019), y de las reformas propuestas, para introducir nuevas figuras e incrementar el carácter ambiental de las existentes, realizadas en los últimos años por organismos internacionales (IEA, 2015; OCDE, 2015; 2018a; Comisión Europea, 2017; FMI, 2018) y por comisiones de expertos creadas por el propio Gobierno español (CERSTE, 2014; CERMFA, 2017; CERSFL, 2017; CETE, 2018).

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[4] La vinculación supone, por ejemplo, que un programa de mitigación de la contaminación en una jurisdicción reconozca las reducciones de la contaminación realizadas en otras jurisdicciones para el cumplimiento de los objetivos de sus participantes (Mehling *et al.*, 2017).

[5] Además, la vinculación de sistemas heterogéneos favorece una mayor participación y simplifica la gestión política del instrumento. De todos modos, también existen problemas asociados a esta aproximación, incluyendo sus impactos distributivos dentro de cada jurisdicción y entre ellas. En cualquier caso, al ser la vinculación voluntaria, generalmente no se producirá a no ser que todos los participantes esperen que sea beneficiosa (Mehling *et al.*, 2018).

Cuadro nº 1. **ESPAÑA EN EL RANKING EUROPEO DE UTILIZACIÓN DE IMPUESTOS AMBIENTALES. 2013**

IMPUESTOS	POSICIÓN EN EL RANKING
Impuestos Ambientales / PIB	26
Impuestos sobre la Energía / PIB	22
Impuestos sobre el Transporte / PIB	22
Impuestos sobre Contaminación – Recursos /PIB	16

Fuente: Hogg *et al*. (2016).

El cuadro nº 2 muestra los impuestos energético-ambientales establecidos por el Gobierno de España. En general, la introducción de estos impuestos obedeció a motivos puramente recaudatorios, incorporándose los motivos ambientales de manera indirecta y reducida, incluso con incentivos a comportamientos ambientales negativos (por ejemplo, mediante el menor gravamen del diésel con relación a la gasolina). Algunos de estos impuestos se encuentran cedidos a las CC.AA., pero sin capacidad normativa (o con capacidad normativa limitada) para permitir la adopción de opciones fiscales más ambiciosas en términos ambientales (véase Economics for Energy, 2014).

El desinterés del gobierno central por la fiscalidad energético-ambiental fue aprovechado por las CC.AA. para desarrollar su autonomía financiera y obtener recursos mediante la introducción de impuestos propios. Las limitaciones establecidas por la LOFCA para evitar los problemas de doble imposición[6] hicieron que las CC.AA. optasen por introducir impuestos propios de carácter regulatorio o extrafiscal, siendo la fiscalidad ambiental uno de los campos de actuación más importantes y, dentro de esta, los impuestos relacionados con el sector energético (véase Labandeira *et al.*, 2009; CERMFA, 2017).

El carácter foral del País Vasco y Navarra introduce algunas diferencias. Así, si bien el estatuto de autonomía reserva al gobierno vasco la potestad de establecer impuestos propios de acuerdo con la LOFCA, las relaciones tributarias entre el País Vasco y el estado se regulan mediante el sistema de concierto económico, teniendo los territorios históricos potestad para establecer, regular y mantener su régimen tri-

[6] La LOFCA (Ley Orgánica 8/1980) tenía que resolver los problemas de doble imposición derivados de la incorporación a la estructura política española de un nuevo nivel administrativo con potestad tributaria. Lo hizo a través de su artículo 6, que prohíbe el establecimiento de nuevos impuestos sobre hechos imponibles previamente gravados. Esta prohibición limitó la capacidad de aprobar nuevos impuestos de las CC.AA., lo que reforzó el papel estratégico de los impuestos ambientales, puesto que el daño ambiental como hecho imponible no había sido considerado por el sistema fiscal español.

butario. Así, el concierto con el estado determina qué impuestos de ámbito estatal pasan a ser propios de los territorios históricos (denominados impuestos concertados) y la libertad de estos para diseñarlos (Socintec, 2003). Como consecuencia, la fiscalidad vasca se ha centrado en la regulación de los impuestos concertados y no en la creación de nuevos impuestos. Asimismo, dentro de los impuestos concertados, el País Vasco posee una elevada capacidad normativa en el campo de los impuestos directos, pero no en los impuestos indirectos (Zubiri, 2003), por lo que el margen de actuación sobre los impuestos sobre la energía establecidos por el gobierno español, por ejemplo para introducir componentes ambientales, es muy limitado.

Cuadro nº 2. **FISCALIDAD ENERGÉTICO-AMBIENTAL DEL GOBIERNO DE ESPAÑA**

	AÑO DE INTRODUCCIÓN	RECAUDACIÓN 2017 (MILLONES €)	CESIÓN A LAS CC.AA.	EFECTIVIDAD AMBIENTAL
Determinados medios de transporte	1993	390	100% recaudación Pueden incrementar los tipos un 15% como máximo	Media
Hidrocarburos	1993	10881	Tipo general: 58% recaudación Tipo especial: 100% recaudación	Media
Electricidad	1998	1306	100% recaudación	Media
Carbón	2005	312	-	Media
Valor producción energía eléctrica	2013	1510	-	Media
Producción combustible nuclear	2013	287	-	Baja
Almacenamiento combustible nuclear	2013	9	-	Baja
Canon hidroeléctrico	2013	197	-	Baja
Gases fluorados	2014	120	-	Elevada
Vehículos tracción mecánica[a]	1989	2392[b]	-	Baja

Notas: a) Impuesto de carácter municipal pero regulado por una ley estatal que solo concede cierta capacidad normativa en algunos elementos tributarios (establecimiento de reducciones de hasta el 75% de la cuota en función de la incidencia en el medio ambiente del tipo de carburante y de las características del motor). b) Recaudación en 2016.

Fuente: Economics for Energy (2014), AEAT (2018, 2019a, 2019b) Ministerio de Hacienda (2018a) y elaboración propia.

Cuadro nº 3. **PESO RECAUDATORIO DE LOS IMPUESTOS ENERGÉTICO-AMBIENTALES AUTONÓMICOS. 2016**

	% IMPUESTOS PROPIOS	% INGRESOS TRIBUTARIOS
Andalucía	3,49%	0,03%
Aragón	24,46%	0,59%
Asturias	83,71%	3,00%
Canarias	70,92%	11,23%
Castilla y León	88,92%	1,15%
Castilla La Mancha	100,00%	0,39%
Cataluña	82,57%	2,62%
Extremadura	63,13%	2,18%
Galicia	46,59%	0,74%
Murcia	2,16%	0,04%
La Rioja	17,34%	0,35%
Comunidad Valenciana	8,00%	0,19%

Nota: a) La recaudación de la fiscalidad energético-ambiental de Asturias y Cataluña incluye toda la recaudación derivada del impuesto sobre las afecciones medioambientales del uso del agua y del canon de agua, respectivamente, y no únicamente la derivada de gravar el uso del agua para generar electricidad, al no existir información desagregada.

Fuente: Economics for Energy (2014), REAF (2018) y elaboración propia.

En la actualidad, en España se pueden distinguir cuatro grandes categorías de impuestos energético-ambientales autonómicos: sobre las emisiones a la atmósfera; sobre instalaciones y actividades que inciden el medio ambiente; cánones eólicos; e impuestos sobre aguas embalsadas. Como puede verse en el cuadro nº 3, su papel en el conjunto de los impuestos propios es importante, con cifras de participación por encima del 70% en varias CC.AA. Sin embargo, su peso recaudatorio apenas alcanza el 3% de los ingresos totales en las CC.AA. más activas[7]. El cuadro nº 4 muestra el año de introducción de los distintos impuestos propios energético-ambientales y su recaudación en términos brutos[8]. Como puede verse, solo dos tributos (el impuesto

[7] El caso de Canarias está influido por el tratamiento que en su régimen especial tiene el impuesto sobre combustibles derivados del petróleo.

[8] Cataluña es la CC.AA. más activa en la creación de estas figuras desde mediados de la década pasada. Así, además de los dos impuestos sobre las emisiones a la atmósfera introducidos en 2014 (de gases y partículas producidas por la industria, y de NOx producidas por la aviación comercial), Cataluña trató de introducir en 2018 un impuesto sobre las emisiones de CO_2 de los vehículos de tracción mecánica, que fue temporalmente paralizado por la presentación de un recurso de inconstitucionalidad por el gobierno central. Sin embargo, en marzo de 2018 el Tribunal Constitucional decidió levantar su suspen-

sobre la afección ambiental del agua embalsada, los parques eólicos y el transporte de electricidad de Castilla y León y el impuesto sobre combustibles derivados del petróleo de Canarias) obtienen una recaudación superior a los 30 millones de euros anuales, lo que confirma el papel marginal de este tipo de figuras subestatales.

Cuadro nº 4. **CREACIÓN Y RECAUDACIÓN DE IMPUESTOS AMBIENTALES AUTONÓMICOS (M€ 2017)**

	EMISIONES	INSTALACIONES CON INCIDENCIA	CANON EÓLICO	AGUAS EMBALSADAS	HIDROCARBUROS
Andalucía	2004 (2,68)				
Aragón	2006 (0,20)	2016 (2,27)		2016 (16,60)	
Asturias		2011 (2,61)		2014 (n.d.)	
Canarias					1987 (330,53)
Castilla y León		2012 (20,64[a])	2012 (20,64 [a])	2012 (20,64 [a])	
Castilla La Mancha	2001 (1,15)		2012 (13,81)		
Cataluña	2014 (3,85)	2017 (7,40)		2003 (n.d)	
Extremadura		1997 (7,19)			
Galicia	1996 (4,07)		2010 (22,58)	2009 (11,81)	
Murcia	2006 (1,06)				
La Rioja		2013 (2,27)			
Comunidad Valenciana	2013 (10,61 [a])	2013 (10,61[a])			
Recaudación	23,62	52,99	57,03	49,05	330,53

Nota: a) Dado que el impuesto grava varios hechos imponibles, hemos distribuido su recaudación prevista de forma uniforme entre los distintos conceptos gravados.

Fuente: Economics for Energy (2014), Ministerio de Hacienda (2018b) y elaboración propia.

sión, por lo que el gobierno catalán planea introducirlo en 2019. Asimismo, la Ley de cambio climático catalana (Ley 16/2017) que regula el impuesto anterior prevé la creación de dos nuevos impuestos ambientales: un impuesto sobre las actividades económicas que generen GEI y otro sobre las emisiones portuarias de los barcos (emisiones de NOx).

En términos ambientales y económicos, la valoración de estos impuestos ha sido en general negativa (véanse Labandeira *et al.*, 2009; Economics for Energy 2014; CERSTE, 2014; OCDE, 2015). En la mayoría de las ocasiones la introducción de los tributos autonómicos no ha respondido a objetivos ambientales. De hecho, ninguno de ellos define la externalidad de forma apropiada, no estiman adecuadamente los costes sociales y no consideran el alcance espacial del daño ambiental gravado, provocando una asignación jurisdiccional inadecuada, existiendo además una elevada descoordinación entre la figuras de las distintas CC.AA. Asimismo, normalmente estos impuestos se centran en instalaciones y tecnologías, y no en daños y consumos, por lo que su capacidad para lograr modificaciones en los comportamientos ambientales es muy limitada. En este contexto, en el siguiente apartado se muestran las soluciones adoptadas en otros países en materia de coordinación de impuestos energético-ambientales subestatales para así contemplar su posible utilidad para el caso español.

4. PROPUESTAS INTERNACIONALES DE COORDINACIÓN DE ACTUACIONES FISCALES SUBESTATALES

Algunos países han establecido mecanismos de coordinación de las distintas iniciativas de fiscalidad energético-ambiental a nivel subestatal para mejorar la efectividad de estas figuras. Canadá constituye quizá el ejemplo más relevante, al incorporar estas cuestiones dentro de un plan nacional contra el cambio climático (Gobierno de Canadá, 2016) en el que los precios sobre el carbono juegan un importante papel. En ese momento cuatro provincias canadienses, que representan más del 80% de la población, ya habían introducido o planeaban introducir mecanismos de fijación de precios del carbono. Así, British Columbia contaba con un impuesto sobre el carbono de los combustibles fósiles desde 2008 (Gobierno de British Columbia, 2019); Alberta tenía desde 2007 un sistema de comercio de emisiones para los grandes emisores industriales (EDF, 2015a) e introdujo en 2017 un impuesto similar al de British Columbia (Gobierno de Alberta, 2019); Quebec había introducido un sistema de comercio de emisiones en 2013, vinculando al de California desde 2014 (EDF, 2015b), y Ontario introdujo un sistema de comercio de emisiones en 2017, vinculado al de California y Quebec desde 2018 (Gobierno de Ontario, 2019)[9].

En este contexto, el Gobierno de Canadá introdujo en 2018 un marco de referencia para gravar el carbono, con la finalidad de garantizar que el precio del carbono se aplicase a un conjunto amplio de fuentes de emisión (incrementando así su efectividad y minimizando los impactos competitivos interprovinciales) y, al mismo tiempo, permitir que las distintas provincias y territorios tuviesen flexibilidad para diseñar su

[9] Sin embargo, el Gobierno de Ontario decidió cancelar el sistema de comercio de emisiones en julio de 2018 (Gobierno de Ontario, 2018) y en noviembre de 2018 estableció un nuevo plan de cambio climático, con estándares de emisiones y mecanismos de cumplimiento flexibles para lograr reducciones en las emisiones de GEI de los grandes emisores (Gobierno de Canadá, 2018).

propia política y adaptarla a sus circunstancias específicas (Gobierno de Canadá, 2016). De este modo, cada provincia y territorio puede definir su propia estrategia de establecimiento de precio del carbono, a través de un impuesto o de un mercado de derechos de emisión. En el primer caso, el precio de carbono debe establecerse en un mínimo de 10 dólares canadienses (C$) por tonelada en 2018, incrementándose en 10 C$ anuales hasta alcanzar los 50 C$/tonelada en 2022. En el caso de que las provincias opten por un sistema de comercio de emisiones, el objetivo de reducción debe ser igual o mayor que el objetivo canadiense de reducción del 30% de las emisiones en 2030 con relación a 2005, reduciendo anualmente los límites hasta 2022 de forma equivalente a las reducciones de emisiones proyectadas con un impuesto.

Si el gobierno provincial no define su política de carbono, o esta no cumple con los requisitos establecidos, se le aplicará el sistema federal, si bien toda la recaudación generada por el sistema será asignada de forma incondicionada a las provincias. El sistema de precio de carbono federal cuenta con dos componentes (véase Ministerio de Finanzas de Canadá, 2019):

- Impuesto sobre el carbono para los combustibles fósiles de 20 C$ por tonelada de CO_2 en 2019, incrementándose anualmente en 10 C$ por tonelada hasta 50 C$ por tonelada en 2022.
- Sistema de comercio de emisiones para las instalaciones industriales que emitan por encima de un determinado umbral (50 kt CO_2e por año), sistema que será optativo para las instalaciones que emitan por debajo de dicho umbral[10].

Como resultado, además de las provincias mencionadas anteriormente, Nova Scotia aprobó en 2018 un sistema de comercio de emisiones, Newfoundland y Labrador anunciaron que introducirán un impuesto sobre el carbono de los combustibles fósiles y estándares de desempeño para la gran industria en 2019, los Northwest Territories anunciaron su intención de introducir un impuesto sobre el carbono en 2019 y Saskatchewan aprobó un estándar de rendimiento también basado en la producción para regular las emisiones de los grandes emisores industriales. Por su parte, otras jurisdicciones subestatales confirmaron su intención de aplicar el sistema federal, parcialmente en el caso de Prince Edward Island (impuesto provincial sobre los combustibles fósiles y comercio de emisiones federal para la gran industria).

En octubre de 2018 el Gobierno de Canadá anunció que los sistemas aplicados en British Columbia, Alberta, Quebec, Nova Scotia, así como los previstos en Newfoundland, Labrador y Northwest Territories cumplían los requisitos de exigen-

[10] El sistema establece anualmente un límite de emisiones para cada instalación basado en su producción. Si la empresa contamina por debajo de ese límite obtiene créditos de emisiones de CO2e, que puede guardar para un uso futuro o vender, mientras que si supera el límite deberá adquirir derechos de emisión o pagar un precio equivalente al nivel del impuesto sobre los combustibles fósiles. También existe la posibilidad de obtener derechos de emisión mediante la realización de proyectos voluntarios de reducción de emisiones en actividades no sujetas al precio del carbono (véase Gobierno de Canadá, 2019).

cia del marco federal, por lo que este no se introduciría en dichas jurisdicciones. Por su parte, el sistema de Saskatchewan cumplía parcialmente los requisitos, por lo que el sistema federal solo se aplicaría sobre las fuentes de emisión no cubiertas. De este modo, el sistema de comercio de emisiones para la gran industria empieza a aplicarse desde enero de 2019 en Ontario, Manitoba, New Brunswick, Prince Edward Island y parcialmente en Saskatchewan, mientras que el impuesto sobre los combustibles empezará a aplicarse desde abril de 2019 en Saskatchewan, Ontario, Manitoba y New Brunswick. Por su parte, en Yukon y Nunavut ambas políticas se introducirán en julio de 2019. En 2022 se producirá una revisión del sistema (Gobierno de Canadá, 2018).

Bélgica aporta un ejemplo diferente de coordinación de la fiscalidad energético-ambiental subestatal, en el que la iniciativa de coordinación no surge del gobierno central, sino que proviene de las propias administraciones subestatales. Las tres regiones belgas (Flandes, Valonia y Bruselas) poseen competencias específicas en materia de movilidad y fiscalidad y en 2011 decidieron conjuntamente reformar la fiscalidad de los vehículos. Como resultado, en 2014 las tres regiones firmaron un acuerdo (modificado parcialmente en 2015) para la introducción de un impuesto por kilometraje de los vehículos pesados, entre cuyas finalidades está la recuperación de los costes de la infraestructura y la mejora del medio ambiente. Este acuerdo establecía normas comunes sobre metodología de tarificación, mecanismos de verificación y control y exenciones del impuesto que posteriormente cada región introdujo en su legislación, con capacidad total para fijar los tipos impositivos[11]. Asimismo, el acuerdo también estableció la creación de un organismo interregional, denominado Viapass, para la cooperación, coordinación, control y concertación entre las regiones en la aplicación del impuesto (Viapass, 2017, 2018, 2019).

Finalmente EE.UU. ofrece otro interesante ejemplo de coordinación entre gobiernos subestatales, en este caso sin participación de la administración federal. Se trata de un sistema de coordinación de otro instrumento económico de regulación ambiental: los mercados de derechos de emisión de GEI. En EE.UU., ante la falta de iniciativa del gobierno federal, en 2003 los gobernadores de Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island y Vermont iniciaron conversaciones para introducir un programa regional de comercio de emisiones de CO_2 de las centrales eléctricas, que dieron como resultado un acuerdo en 2005 entre siete de estos estados para la creación de la Regional Greenhouse Gas Initiative (RGGI). Fruto de este acuerdo (al que se sumaron en 2007 los otros dos estados que había participado inicialmente, así como Maryland) se estableció en 2006 un marco regulatorio de referencia para el desarrollo de un mercado de comercio de emisiones, que fija normas comunes y determina el límite total de emisiones y su reparto entre

[11] Si una región decide modificar los tipos impositivos debe notificarlo a las demás con cuatro meses de antelación (Viapass, 2019).

los estados (véase RGGI, 2019b). De este modo, la RGGI se configura como un mercado regional en el que cada estado, a través de regulaciones basadas en el marco de referencia, establece un programa individual de comercio de emisiones[12]. Cada programa fija un límite en las emisiones de CO_2 de las centrales eléctricas, emite derechos y determina la participación en las subastas regionales de derechos. El primer período de cumplimiento de la RGGI se inició en 2009, llevándose a cabo una revisión en 2012 que dio lugar a modificaciones en 2013 (RGGI, 2019c).

5. LECCIONES PARA ESPAÑA

El análisis de la fiscalidad energético-ambiental española no muestra un panorama muy alentador. Los impuestos vigentes muestran problemas de asignación jurisdiccional y coordinación, su efectividad ambiental es reducida y su capacidad recaudatoria limitada, por lo que es difícil en estas condiciones abordar adecuadamente las externalidades energético-ambientales y facilitar la transición energética. Teniendo en cuenta las ventajas de la fiscalidad energético-ambiental subestatal (véase apartado 2), incluso para abordar problemas cuyo alcance espacial excede su jurisdicción, bien por falta de iniciativa del gobierno central o por la existencia de co-beneficios de carácter regional, parece conveniente favorecer el desarrollo de los impuestos energético-ambientales autonómicos de forma coordinada, asegurando su efectividad ambiental y evitando el bloqueo de iniciativas subestatales, como sucedió con el impuesto catalán sobre emisiones de vehículos (véase apartado 3).

Desde una perspectiva institucional, un sistema de gobernanza compartida como el canadiense, aplicado con un criterio de subsidiaridad, podría ser apropiado para España. El gobierno central establecería un marco de referencia con los objetivos de las políticas energética y ambiental, aprobaría un impuesto general sobre emisiones que permitiese alcanzarlos y dejaría libertad a cada CC.AA. para definir el instrumento (fiscal o de otro tipo) que considerase más adecuado para conseguir los mismos resultados. El Impuesto aprobado por el gobierno central solo sería aplicable si la CC.AA. no desarrolla su propia política, o si el proceso de revisión de los planes autonómicos revela algún tipo de carencia o limitación.

En el caso de los problemas ambientales cuyo alcance espacial se circunscriba al territorio de las CC.AA., estas deberían ser las encargadas de gestionarlos, si bien es fundamental cierta armonización y coordinación para que las políticas sean efectivas

[12] El programa se aplica a las emisiones de las centrales de generación eléctrica de al menos 25 MW, que deben presentar derechos de emisión equivalentes a sus emisiones de CO2 durante un período de control de tres años. Para ello pueden utilizar derechos de emisión de cualquier estado participante, que pueden adquirir participando en las subastas trimestrales o a través de mercados secundarios. Asimismo, también se permite la obtención de derechos mediante proyectos de reducción de emisiones o secuestro de carbono fuera del sector eléctrico, que las empresas pueden utilizar para cumplir con hasta el 3,3% de sus obligaciones (RGGI, 2019a).

y no sufran presiones competitivas que afecten su funcionamiento. En este sentido, la propuesta de CERSTE (2014) y CERMFA (2017) de crear impuestos estatales totalmente cedidos a las CC.AA. con libertad para fijar los tipos impositivos dentro de un margen, permitiría avanzar en este sentido. La intervención del gobierno central en los problemas ambientales de alcance autonómico debiera circunscribirse al establecimiento de una regulación común para la determinación y verificación del daño ambiental, lo que permitiría que los impuestos energético-ambientales cumpliesen con su finalidad ambiental y no fraccionasen el mercado. Fijado el coste de las emisiones a nivel central, las CC.AA. mantendrían su libertad para determinar la política a aplicar (no necesariamente impositiva).

De todos modos, dada la tradicional falta de interés del gobierno central en la fiscalidad energético-ambiental, las CC.AA. también podrían considerar la posibilidad de llegar a acuerdos de colaboración interregionales, de forma similar a los casos belga y estadounidense descritos en el apartado anterior, para el establecimiento de normas comunes de fiscalidad sobre determinados problemas ambientales no regulados por el gobierno central. Finalmente, en el caso del País Vasco, dada la autonomía fiscal de la que disponen los territorios históricos, el Órgano de Coordinación Tributaria de Euskadi, que tiene como principal misión impulsar la armonización, coordinación y colaboración entre las diputaciones forales en sus competencias tributarias, podría ser el organismo encargado de establecer el marco de referencia de las políticas.

Asimismo, también sería recomendable favorecer acuerdos de coordinación en materia de fiscalidad energético-ambiental entre el País Vasco y las CC.AA. fronterizas (por efectos medioambientales de industrias contaminantes situadas a ambos lados de los límites territoriales).

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Autores

AERNOUDT, Rudy. He holds masters in Economy, Thomistic Philosophy and European economics and has served as Chief of Staff at European, federal and regional (Flanders and Wallonia) level. Besides, Aernoudt was consecutively Credit Manager at ING, Secretary-General of the Department of Economics and innovation, director-general of *One laptop per child*, a spin-off of MIT, and Senior Economist at the European commission, where he is actually dealing with financing issues, industrial, taxation and space policy. He is also professor corporate finance and enterprise policy at the Universities of Ghent and Nancy; curator of TEDxBrussels; columnist and author of several books and papers on corporate finance, politics and economics. Aernoudt is also co-founder of EBAN, the European Business Angels Network and founder of FREE (foundation for the research on education and entrepreneurship).

ANGULO GARZARO, Amaya. Licenciada en Derecho por la Universidad de Deusto, cuenta con un máster en Derecho de la Empresa por la misma Universidad. Su área de especialización es el Derecho Administrativo, temática sobre la cual tiene numerosos artículos publicados. Actualmente trabaja como funcionaria del Gobierno Vasco en el área de Contratación del Departamento de Turismo, Comercio y Consumo. Paralelamente se encuentra cursando los estudios conducentes a la elaboración de su tesis doctoral.

ANGULO GARZARO, Noemí. Doctora en Derecho por la Universidad de Deusto. Licenciada en Derecho por la Universidad de Deusto y ha cursado un Erasmus Mundus Master en Derecho del Comercio Transnacional y Finanzas en la Universidad de Deusto, la Universidad de Tilburg y la Universidad de Estrasburgo. Actualmente trabaja como Asesora Jurídica en la Dirección de Régimen Jurídico, Servicios y Procesos Electorales del Departamento de Seguridad de Gobierno Vasco.

BESSANT, John. BSc., PhD. Originally a chemical engineer, he has been active in the field of research and consultancy in technology and innovation management for over 35 years. Bessant is currently holds the Chair in Innovation and Entrepreneurship at the University of Exeter and has visiting appointments at the universities of Erlangen-Nuremburg and University of Stavanger, Norway. In 2003 he was elected a Fellow of the British Academy of Management and in 2016 a Fellow of the International Society for Professional Innovation Management (ISPIM). He has acted as advisor to a wide range of public and private sector organizations and is the author of 30 books and many articles on the topic.

DAHL, Johanna. Development Planner, Regional Council of Ostrobothnia, Finland. Johanna Dahl holds a PhD in economics and business administration from Hanken School of Economics. Dahl's academic background is within the fields of internationalization of SMEs, strategy-as-practice and coopetition (inter-competitor cooperation in business networks). Her research has been published in journals such as, Industrial Marketing Management, International Studies of Management & Organization and Competitiveness Review: An International Business Journal. Johanna Dahl's current work at the Regional Council of Ostrobothnia focuses on the regional smart specialization strategy, international cooperation projects and open innovation as a driver of regional development.

GAGO RODRÍGUEZ, Alberto. Catedrático de Economía Aplicada de la Universidade de Vigo, es Doctor en Economía por la Universidade de Santiago, fue Rector de la Universidade de Vigo y presidente de la Asociación Española para la Economía Energética y del grupo de investigación rede de la Universidade de Vigo. Su trayectoria científica ha seguido un itinerario de Fiscalidad Aplicada, proyectada sucesivamente sobre ámbitos diversos de interés: reforma fiscal internacional, imposición ambiental, reforma fiscal verde, imposición energética e imposición sobre el transporte. Su enfoque investigador combina los aspectos estructurales e institucionales de la fiscalidad con sus impactos microeconómicos y las fórmulas propositivas para su reforma, entremezclando los temas ambientales y energéticos con los instrumentos de política pública.

HOSPERS, Gert-Jan. He has a chair in Urban and Regional Transition at the department of Human Geography, Planning and Environment of Radboud University (The Netherlands). Besides, Hospers is an economic geographer at the University of Twente and director of Stichting Stad en Regio, a foundation promoting urban and regional development at a human scale. Over the years, he has worked on local and regional development, place marketing, demographic shrinkage and town centres. Since recently, he is studying the role of manufacturing SMEs in regional economic development. Most of Hospers' research takes place in East Netherlands, Germany and Denmark. Recent publications include the book *Managing Population Decline in Europe's Urban and Rural Areas* (2015, with Nol Reverda), the article 'People, place and partnership: exploring strategies to revitalise town centres' (*European Spatial Research and Policy*, *24* (2017), pp. 65-79) and the report *Small Atlas Metropole Ruhr: The Ruhr Region in Transformation* (2018, with Burkhard Wetterau).

JOHNSON, Jerker. Economist specialized in International trade and Development. His work as the International Coordinator in the Regional Council of Ostrobothnia has brought him to work with European cohesion policies and Smart Specialization (S3) and he initiated the S3 process in Ostrobothnia in 2012. He holds and Licentiate Degree in Economic Sciences from Hanken School of Economics and a Master Degree in Social Sciences from Åbo Akademi University. Apart from having worked as an academic teacher and researcher he is also having a waste experience of both leading and handling European development projects. The experiences range from being manager in the LEADER II initiative to different transnational learning and development projects. Jerker Johnson is moreover an expert in national accounts and has a long experience in working both as a short- and long-term advisor on constructing National Accounts systems in different countries in Africa, Mid-East, South-East Asia, Latin-America and the Caribbean.

JUNGWIRTH, Georg. He studied Business Administration at the University of Graz (Austria). After traineeships in Barcelona (Spain) and Silicon Valley (USA) he worked in a German marketing consulting company. Jungwirth did his doctoral studies at the Institute for Marketing at the University of Graz, where he also worked as Assistant Professor. Since 2001 he is a faculty member of the Degree Programme International Marketing & Sales Management of the University of Applied Sciences CAMPUS 02 in Graz (Austria). His research focus lies in the strategies and success factors of medium-sized world market leaders from Austria («Hidden Champions»). He is co-founder of the Competence Centre for Family Businesses at the same University where he covers the research about very successful and very old family businesses from Austria.

KAMP, Bart. Investigador principal del área de Internacionalización y Servitización de Negocios en Orkestra-Instituto Vasco de Competitividad y profesor en la Deusto Business School y la Louvain School of Management de Bélgica. Su investigación se centra en las estrategias competitivas que permiten a las empresas ser líderes en sus respectivos nichos de mercado a nivel internacional, y en procesos de servitización entre empresas manufactureras. En los más de 20 años que lleva ejerciendo su actividad profesional, Bart ha desempeñado funciones como investigador y asesor en áreas como políticas de innovación, competitividad industrial, atracción de inversiones extranjeras y otras cuestiones de desarrollo socio-económico. Ha prestado servicios a instituciones multilaterales, organizaciones gubernamentales, pymes y empresas multinacionales de diversos países. Ha escrito numerosos artículos y editado libros sobre estos temas, que han sido traducidos al neerlandés, inglés, castellano, euskera, portugués y japonés.

KÖNIG, David. He has a Bachelor's degree in Marketing & Sales and a Master's Degree in International Marketing, both of which he has received at the University of Applied Sciences CAMPUS 02 in Graz (Austria). During his studies König extensively focused on Brand Management, Consumer Behaviour and Business Ethics. With his Master Thesis «CSR in Austrian Hidden Champions» he contributed to the research field «small & medium-sized world market leaders from Austria» of CAMPUS 02. In his professional life he worked in marketing departments of companies in the high technology industry e.g. NXP Semiconductors. Currently, he works as Marketing Campaign Manager for «Anton Paar», a world market leader in measuring technology.

LABANDEIRA VILLOT, Xavier. Catedrático de Economía en la Universidade de Vigo, donde pertenece al grupo de investigación Rede y codirige la cátedra Naturgy sobre energía y desarrollo sostenible. Es director de Economics for Energy y forma parte del Grupo Intergubernamental sobre Cambio Climático de la ONU (IPCC) para la elaboración de su Quinto y Sexto Informes de Evaluación. Entre 2014-2017 dirigió la Florence School of Regulation-Climate en European University Institute de Florencia. Su investigación se sitúa en la frontera entre la economía climática, pública y energética, publicando en las principales revistas académicas de estos campos y participando asiduamente, en muchos casos como organizador, en congresos y seminarios académicos. Ha dirigido abundantes tesis doctorales y proyectos de investigación, públicos y privados, y ha realizado estadías en varias universidades internacionales.

LABEAGA AZCONA, José María. Catedrático de Fundamentos del Análisis Económica en la Universidad Nacional de Educación a Distancia. Es Doctor en Economía por la Universidad Autónoma de Barcelona y fue Director General del Instituto de Estudios Fiscales y Director de la Cátedra FEDEA-BBVA de Nuevos Consumidores en la Fundación de Estudios de Economía Aplicada. Las áreas en las que ha desarrollado su investigación incluyen el análisis del comportamiento individual en las decisiones de consumo y oferta de trabajo, así como la simulación y evaluación de los efectos de las políticas públicas. Ha sido miembro del comité científico o del comité asesor y editor de diversas revistas académicas y ha publicado los resultados de sus investigaciones en las principales revistas académicas de su especialidad.

LÓPEZ OTERO, Xiral. Doctor en Economía por la Universidade de Vigo y Máster en Economía Industrial por la Universidad Carlos III de Madrid. En la actualidad es investigador en la Universidad Nacional de Educación a Distancia, con una trayectoria profesional previa en la Universidade de Vigo y en Iberdrola. Su actividad académica ha estado centrada en la investigación relacionada con la economía energética y ambiental, fundamentalmente en los campos de la fiscalidad energético-ambiental, la demanda de energía y la pobreza energética, contando con varias publicaciones en las principales revistas académicas de su especialidad.

MARIUSSEN, Åge. Degree in Sociology from the University of Tromsö (mathematical statistics and economy), he holds a position as «researcher 1» (professor level) in Nordland Research Institute, 1998. Mariussen has been working as a researcher since 1982 on questions relating to regional development, restructuring, research policy and innovation in the following institutions: University of Tromsø, Nordland Research Institute, Nordregio, Stockholm, Stepgruppen and NIFU, Oslo, Åbo Akademi University and the Vaasa University. His current positions are senior researcher in Nordland Research Institute and Institute-leader University of Vasa. Åge Mariussen is also collaborating with the JRC S3 platform in Sevilla, with several joint publications, including the debate on Smart Specialisation after 2020.

RAMMER, Christian. Deputy head of the Department «Economics of Innovation and Industrial Dynamics» at the Centre for European Economic Research (ZEW) in Mannheim, Germany. His research focuses on innovation in firms, technology transfer, and research policy. He is director of ZEW's annual innovation survey, the Mannheim Innovation Panel, which is the German contribution to the Community Innovation Surveys of the EU. Before joining ZEW in 2000, he worked as a senior researcher at the Austrian Research Centers and as an assistant professor and lecturer at the Vienna University of Economics and the University of Linz. Christian Rammer holds an MSc in Regional Analysis and a PhD from the University of Vienna.

SPIELKAMP, Alfred. Professor of Business Administration with special focus on Management of Innovation and Market Research in the Department of Business Studies at the Westphalian University of Applied Sciences, Gelsenkirchen. As Research Associate at the Centre for European Economic Research (ZEW) Mannheim he works in close cooperation with the research unit of «Economics of Innovation and Industrial Dynamics». Beyond that Alfred Spielkamp provides scientifically grounded economic policy advice and consulting services to companies. Before joining the Westphalian University of Applied Sciences he worked as an expert in national studies and international projects for German Governmental Departments, the European Commission, and the Organisation for Economic Co-operation and Development, OECD.

UGARTE ARREGUI, Josu. Desde octubre de 2018 es el máximo responsable de Schneider Electric para España y Portugal, cuando asume la dirección de la Zona Ibérica. Su misión es acelerar la transición digital de los sectores en los que opera la compañía y ayudar a los clientes a apoyarse en la transformación digital para mejorar su competitividad. Licenciado en Económicas en la Universidad del País Vasco, Ugarte se incorporó a Schneider Electric en 2015, como responsable del área de Industry de la compañía. Previamente fue presidente de Mondragón Internacional y CEO de varias empresas del grupo en Marruecos, Polonia y Francia. Es miembro del Comité Ejecutivo del programa de transformación empresarial cre100do y preside la sección de Internacionalización. Este clúster tiene como misión ayudar al crecimiento a 100 empresas españolas de alto potencial para que a su vez abran el camino a muchas otras.

VENOHR, Bernd. Ph. D. Business Administration at the Johann Wolfgang Goethe University in Frankfurt. MBA from Northwestern University, Chicago. Between 2005 and 2008 Venohr was a tenured Professor of International Strategic Management at the Berlin School of Economics and Law. He was Managing Director at Accenture (2000-2005) and Bain & Company (1987-2000). As a consultant he works with owners and top managers of mid-sized and family-owned companies on strategic and organisational issues. Main topics include developing and implementing growth strategies (focus on innovative business models), organisational design and governance (including succession) and mergers and acquisitions. He advises governmental institutions in Europa and Asia-Pacific on policies to enable the growth of innovation-led mid-sized companies. In Germany he has worked with the Bundeswirtschaftsministerium (Federal Ministry of Economy). Is one of the foremost experts on the success model of globally active German Mittelstand companies. Venohr has published 6 books on management and strategy topics; including one book in English: Florian Langenscheidt, Bernd Venohr (eds.): The Best of German Mittelstand: The World Market Leaders. Deutsche Standards EDITIONEN, Köln 2015.

LÍNEA EDITORIAL DE *EKONOMIAZ*

DECLARACIÓN DE OBJETIVOS

Ekonomiaz es una revista semestral editada por el Departamento de Hacienda y Economía del Gobierno Vasco que tiene por objetivo fomentar el análisis y el debate económico con un enfoque regional y especial atención al campo aplicado a la economía vasca. Para el cumplimiento de este objetivo se marca tres líneas de trabajo: 1) la promoción de la investigación teórica y aplicada, con especial atención a los ámbitos de la Economía, las Instituciones y la Administración del Sector Público; 2) la divulgación de calidad de los resultados obtenidos en las áreas que cultiva; y 3) la contribución a la mejora de la racionalidad del proceso de toma de decisiones públicas en materia económica, facilitando explicaciones, fundamentos y datos para respaldar el diseño, la ejecución y la evaluación de las políticas económicas de las administraciones públicas y de la vasca en particular.

Fundada en 1985, Ekonomiaz ha conocido diversas etapas: tras una primera de lanzamiento con carácter trimestral, que aunó el análisis estructural con el coyuntural, ambos ligados a la economía vasca, pasó a adoptar una periodicidad cuatrimestral y una política editorial de calidad en aspectos cruciales como los relativos a la ética de la investigación y publicación, al proceso de evaluación y a una buena gestión profesional, con los que ha llegado a consolidarse en el panorama editorial como revista de referencia dentro del enfoque regional de la ciencia económica. A partir de 2014, y con carácter semestral, inicia una tercera etapa en la que, sin renunciar a mantener el rigor propio de la investigación académica y la divulgación científica de calidad, expresadas en un lenguaje accesible que facilite su comprensión a cualquier lector interesado en el debate económico, busca redoblar su compromiso con los problemas reales de la economía, para extraer consecuencias prácticas para la acción pública.

Para ello, *Ekonomiaz* no se limita a abordar los temas candentes del momento con una visión a corto plazo, sino que, como herramienta de prospección económica a medio y largo plazo, intenta también penetrar en el futuro y trata de situarse lo más cerca posible de la vanguardia del conocimiento, planteando temas que puedan llegar a ser objeto de especial interés y atención en el mundo académico, económico y político con una perspectiva internacional.

Con el subtítulo de *Revista Vasca de Economía* se ha querido subrayar que, aunque sus análisis no se circunscriben exclusivamente a su ámbito territorial natural, el conocimiento de la economía vasca y la perspectiva del desarrollo y la innovación regional deben estar siempre presentes.

La concepción del contenido de la revista se basa en la elección de un tema central sobre el que pivotan los artículos. La elección de dichos temas se guía por el criterio de relevancia en su doble acepción de importancia y pertinencia: los temas seleccionados son aquellos que se encuentran en cada momento en el centro del debate académico, político y social. Además, la revista incorpora la sección «Otras Colaboraciones», donde se publican trabajos originales no solicitados expresamente relativos a asuntos de interés en la economía real y la investigación académica, específicamente aplicados al País Vasco.

GESTIÓN EDITORIAL

La gestión de la revista *Ekonomiaz*, que es uno de los elementos esenciales de la política editorial, descansa en dos órganos: el Consejo de Redacción y la Dirección ejecutiva. El primero es el responsable de mantener la línea editorial y la selección de los temas centrales de investigación, así como del asesoramiento científico general y de la relación con centros de investigación y universidades. Los miembros de este Consejo se eligen de acuerdo a principios de excelencia profesional y académica, capacidad investigadora, así como a criterios de experiencia en tareas de dirección y edición de revistas científicas. La Dirección ejecutiva es responsable del buen funcionamiento de los procesos de selección de temas, coordinadores y autores, de la evaluación basada en un sistema de doble evaluación anónima, y de la publicación final de los trabajos. Por otro lado, *Ekonomiaz* cuenta con un Consejo Asesor, formado por especialistas internacionales de diferentes zonas geográficas y áreas de investigación aplicada, cuya función es apoyar y asesorar al Consejo de Redacción en cuanto a la calidad de la revista y proyección internacional, en estrecha colaboración con la Dirección Ejecutiva.

Ekonomiaz está admitida en ECONLIT y en el catálogo de revistas Latindex, en el que solo aparecen las revistas previamente seleccionadas y clasificadas según criterios internacionales de calidad editorial convenidos por el Sistema Latindex. Dichos criterios son utilizados por la base de datos DICE (Difusión y Calidad Editorial de las Revistas Españolas de Humanidades y Ciencias Sociales y Jurídicas), que tiene como objetivo facilitar el conocimiento y la consulta de algunas de las características editoriales de las revistas españolas de Humanidades y Ciencias Sociales más estrechamente ligadas a la calidad. La base de datos DICE está desarrollada por el CINDOC (Centro de Información y Documentación Científica) y la ANECA (Agencia Nacional de Evaluación de la Calidad y Acreditación).

Ekonomiaz está calificada dentro del primer tercio de revistas vivas de Economía de mayor impacto, según criterios de evaluación de revistas científicas IN RECS (Ministerio de Educación y Ciencia) y RESH (Revistas Españolas de Ciencias Sociales y Humanidades). Asimismo, está incluida en CARHUS Plus+ 2014, CIRC. Clasificación integrada de revistas científicas (con valor superior a D), DIALNET, MIAR SHERPA/RoMEO, DOAJ (Directory of Open Access Journals), RePec y, desde julio de 2018, en SCOPUS.

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NORMAS DE PRESENTACIÓN DE TEXTOS ORIGINALES A *EKONOMIAZ*

1. ORIGINALIDAD

Los artículos remitidos no pueden haber sido publicados, y tampoco figurar en otro trabajo a punto de publicarse o en proceso de publicación, en cualquier otra revista nacional o extranjera (en una versión similar traducida), ya sea de edición ordinaria o electrónica. Se entiende por publicación repetitiva no solo el duplicado exacto de un artículo, sino también la publicación repetida de esencialmente la misma información y análisis, o que forme parte de un libro del autor o colectivo.

Además, en la carta de presentación de artículos originales se debe incluir la declaración de que el manuscrito se ha enviado únicamente a Ekonomiaz y que, por tanto, no se ha remitido de manera simultánea a otra publicación.

De no haber una declaración expresa de la contribución específica de cada uno de los autores en un trabajo colectivo, se entiende que todos ellos, indistintamente, han participado en la concepción y el diseño, la recogida de datos, el análisis y la interpretación de los mismos, la redacción del borrador, la revisión crítica del artículo y la aprobación final.

2. RIGOR Y CALIDAD

Los factores sobre los que se fundamenta la calidad exigida a los trabajos originales que se presentan y, en consecuencia, la decisión sobre la aceptación y rechazo de los originales por parte de la Redacción de *Ekonomiaz* son:

- Originalidad de los resultados obtenidos o hipótesis verificadas (con distintos grados). Actualidad y novedad científica.
- Relevancia epistemológica: utilidad o aplicabilidad y significación o avance en el conocimiento.
- Fiabilidad y validez científica, es decir, calidad metodológica contrastada.
- Redacción excelente, estructura y coherencia lógica, y buena presentación material.

Asimismo, *Ekonomiaz* recomienda y valora la incorporación de la perspectiva de género en los análisis efectuados.

3. ESTILO

Debe cuidarse el estilo y la claridad de la escritura, respetar escrupulosamente las normas gramaticales y recomendaciones de las autoridades de la Lengua, y evitar las expresiones redundantes e innecesarias, así como un uso sexista del lenguaje. Cuando el idioma original no sea el inglés, se desaconseja el uso de anglicismos técnicos, salvo que no exista voz ni forma de adaptación al español o al euskera, así como los anglicismos sintácticos o de construcción. Las normas internacionales ISO (UNE, en español) son de especial relevancia y deben tenerse en cuenta en el ámbito de la edición científica.

La Redacción de Ekonomiaz podrá hacer modificaciones menores de redacción: eliminar errores gramaticales y tipográficos, expresiones poco afortunadas, giros vulgares o enrevesados, frases ambiguas o afirmaciones dudosas…, a fin de asegurar la corrección gramatical, la adecuación al estilo científico y el estricto respeto a las normas técnicas y de estilo de las fuentes más autorizadas: Libro de Estilo del IVAP (Instituto Vasco de Administración Pública) y diccionarios de la Real Academia de la Lengua Española y de Euskaltzaindia.

Obviamente, no se introducirán cambios sustanciales en el contenido del artículo, y en todo caso la versión final será sometida a la aceptación del autor. Dado que la responsabilidad del contenido de un trabajo, así como su propiedad, pertenecen a los autores hasta que no es publicado en Ekonomiaz, la revista les informará de los posibles cambios y modificaciones que hayan podido producirse durante la revisión crítica y estilística del original, previa a su publicación, y pedirá autorización para modificar el contenido y adaptarlo al estilo editorial. El autor deberá aceptar las correcciones de estilo propuestas o rechazarlas razonadamente.

4. NORMAS DE PRESENTACIÓN FORMAL DE ORIGINALES

Todas aquellas personas que deseen colaborar en Ekonomiaz deberán enviar sus artículos al Departamento de Hacienda y Economía del Gobierno Vasco (Redacción de Ekonomiaz) por correo electrónico a ekonomiaz@euskadi.eus

1. Los originales podrán estar escritos en español, euskera o inglés, en formato MICROSOFT WORD® o compatible.
2. La Redacción de Ekonomiaz acusará recibo de los originales y notificará al autor, a la dirección electrónica de contacto, las posibles incidencias del envío y la situación en todo momento de la fase de evaluación, así como el dictamen final. Para cualquier información sobre el proceso editorial, los autores pueden contactar con la Redacción en: ekonomiaz@euskadi.eus
3. Los originales deberán estar mecanografiados a espacio y medio, con un cuerpo de letra de tipo 12 y márgenes mínimos de 2,5 centímetros. La extensión de los

trabajos deberá estar comprendida entre 25-40 páginas, incluidos apéndices, cuadros y gráficos (8000 palabras máximo). En la primera página deberá constar el nombre del autor o autores junto con la institución a la que pertenezcan, además de una dirección de contacto que incluirá tanto los datos postales como los números de teléfono y dirección de correo electrónico. Esta dirección de contacto será la empleada en las comunicaciones de los editores de la revista.

4. Cada original incluirá, en hoja independiente, un resumen del trabajo donde se explique la metodología, los principales resultados y las conclusiones, de no más de 125 palabras en español y en inglés, un índice del contenido, una lista de palabras clave en español e inglés (al menos dos y no más de cinco) y las referencias correspondientes a la clasificación del Journal of Economic Literature.

5. El texto correspondiente al contenido del trabajo presentado deberá comenzar en una nueva página. Las distintas secciones en las que se estructure el artículo deben numerarse de forma correlativa siguiendo la numeración arábiga (incluyendo como 1ª la sección de Introducción). Consecutivamente, los apartados de cada sección se numerarán con dos dígitos (por ejemplo: 2.1, 2.2, 2.3).

6. Los cuadros, gráficos estadísticos y el material gráfico en general, se numerarán de forma consecutiva en cada categoría y siempre con números arábigos. En cuanto a su ubicación en el original, figurarán al final del documento, tras las Referencias Bibliográficas, y, en su caso, los apéndices; a lo largo del texto se indicará claramente el lugar preciso en el que deben aparecer en la versión impresa. Su utilización ha de ser mesurada, no debiéndose incluir información innecesaria o irrelevante.

7. Si el artículo incluye representaciones gráficas, se adjuntarán los datos numéricos que sirven de base para su elaboración.

8. Las ecuaciones y cualquier otra expresión matemática deberán aparecer numeradas de forma correlativa a lo largo del texto y con alineamiento al margen derecho.

9. Las notas que se intercalen en el texto deben limitarse por criterios de estricta oportunidad, de acuerdo con el desarrollo del trabajo. Para referenciar las notas que pudieran incluirse en tablas o cuadros, se usarán letras minúsculas (a, b, etc.), presentando su contenido al pie del respectivo cuadro o gráfico. Los agradecimientos y cualquier otra información que pudiera incorporarse, figurarán referenciados mediante un asterisco asociado al título del artículo o al nombre del autor o autores, según corresponda.

10. Las referencias a la literatura científica invocadas en el trabajo figurarán tras la última sección del artículo y bajo la rúbrica Referencias Bibliográficas. Se detallarán por orden alfabético de autores (no numerada). Su correcta verificación es responsabilidad del autor. Las citas aparecerán en el texto según el formato autor-fecha, distinguiendo mediante letras minúsculas consecutivas las coincidencias de

autor y año. Las referencias en el texto que incluyan hasta dos autores deben ser completas, usándose la fórmula et al. para un mayor número de autores.

11. En cuanto a la composición de las entradas en la lista bibliográfica, se ajustarán al siguiente formato:

AUERBACH, A. y KOTLIKOFF, L. J. (1983): «National savings, economic welfare, and the structure of taxation», en Feldstein, M.S. (ed.), *Behavioural simulation methods in tax policy analysis*, NBER-The University of Chicago Press, 459-498, Chicago.

COWELL, F.A. (1990): *Cheating the government: The economics of tax evasion*, Massachusetts MIT Press, Cambridge.

HOOVER, K. (1984): «Comment on Frazer and Boland-II», *American Economic Review*, 74: 789-794.

—— 1988: The New Classical Macroeconomics, Blackwell, Oxford.

—— 1989: «Econometrics as Measurement», mimeo.

—— 1990: «Scientific Research Program or Tribe? A joint appraisal of Lakatos and the New Classical Macroeconomics», University of California, Working Paper, 69, Davis.

—— 1991a: «Calibration and the Econometrics of the Macroeconomy», Mimeo.

—— 1991b: comunicación privada.

MIRRLEES, J.A. (1971): «An exploration in the theory of optimum income taxation», *Review of Economic Studies*, 38: 175-208.

SEGURA, J. (1991): «Cambios en la política de defensa de la competencia y la política industrial», *Ekonomiaz 21*:32-49.

12. El Consejo de Redacción se reserva el derecho a publicar los artículos que reciba, previo sometimiento a un proceso de doble evaluación anónima (doble ciego) por pares académicos.

13. En caso de que el original se acepte para su publicación, el autor o autora se compromete a satisfacer las recomendaciones y prescripciones de los informes de evaluación y presentar una versión mejorada. También deberá revisar las pruebas de imprenta en el plazo que se indique en cada momento.

14. Su publicación no significa necesariamente el acuerdo con el contenido, que será responsabilidad del autor. Los autores recibirán, como mínimo, dos ejemplares del número de la revista en el que se publique el original.

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